CIEARING LEARING HOUSE

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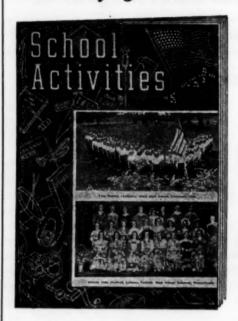
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INTERMITTENT GRADING

By OGDEN R. LINDSLEY

How many of today's teachers are overworked and cannot grade the number of papers they would like each student to write each semester? In this article we at the Behavior Research Laboratory suggest a method that will increase the number of papers each student must write and yet will not increase the teacher's work or reduce the care each student will take with each paper. We have based our method on some of the recent results of motivation and learning research with the lower animals (2), (4).

Learning—or the acquisition of new responses—is very difficult when it is passive; that is to say, when the individual who is being taught makes few responses. A teacher usually employs laboratory sessions, class discussions, papers, and reports in teaching a class. These devices, however, are of much greater value in giving the student training than in giving him a grade. This classwork produces responses from the students which can be either rewarded, ignored, or punished, depending upon the correctness of the responses.

Most teachers today grade each report turned in by each student in the class. Usually the teacher does not need this vast number of papers and reports in order to determine accurately a student's absolute level of achievement or his relative standing in the class. Why, then, this large number of papers? Simply to insure the active participation of the student in the class—or, as the psychologist would say, to produce responses from the students. The average

teacher is so overworked that he can grade only a few papers per student each semester, and often he can give these few papers only a cursory glance. Thus, in most cases, a student can participate actively in the course for only a few hours each semester. The rest of the time he need only attend lectures, listen, and take notes if he is so inclined. Motivation is often on a low level, and many students are left to procrastinate—much to their own discomfort during the final examination period.

Through a great deal of research the psychologist has learned that a lower organism—such as a dog, or a pigeon—will make more responses when he gets a reward (a reinforcement) for only a small portion of his responses than he will make if each of his responses is reinforced. The psychologists later learned that such intermittent reinforcement also worked with children (1) and adults (3). They, too, would make more responses for the infrequent than for the frequent reward. Piecework and gambling are two common types of intermittent reinforcement that everyone knows about.

If only a small portion of the papers each student must turn in each semester were graded, and the student could not tell in advance which of his papers were to be graded, then the conditions for intermittent reinforcement would be met. A student should work as hard on a paper that was not to be graded as on one that was to be graded. Then the teacher could produce more responses from each student, and he

EDITOR'S NOTE

Teachers often complain of the time and energy expended on marking students' papers. Their suggestions to reduce size of classes, to provide for teacher aides, and to lighten the daily teaching load are based on the assumption that an English teacher, for example, must examine, mark, and return to the student each paper the student submits. Teachers, pupils, principals, superintendents, board of education members, and parents have all accredited this assumption. Now, here comes an article that says no: it is neither necessary nor desirable to mark everything a student offers in writing. In fact, it is time to explode the all too commonly accepted assumption. What do you think? Do the suggestions of the author make good sense? The article describes a practical application of recently developed methods of reinforcement in animal learning and points out that this basic research has implications for eliminating wasteful delay

in human learning.
Dr. Lindsley is with the Behavior Research Laboratory, Metropolitan State Hospital, Waltham, Massachusetts, and on the staff of the Harvard Medical School, department of psychiatry.

would not have increased his own grading load. The student, moreover, would profit through his more active participation during the entire semester. Let us now describe such a grading procedure in detail:

1. Describe the method to the class, and be sure to stress the benefits, both to student and to teacher, of using this method. Explain also the history of the method and the experimental justification for it.

2. Assign the papers the students are to write, and decide what percentage of the final grade these papers will comprise. Be sure the task assigned each week is not more burdensome than its percentage of the final grade would justify. You must weigh carefully this pay-off v. cost ratio—this balance between the burden and the grade. You

could, for instance, have the students summarize each week's lecture and assignment. A simple summary of this sort would not consume too much of the student's time, and it should not interfere with his other work-for you do not want your fellow faculty up in arms against the method. Fourteen difficult papers would not be worth 10 per cent of the final grade and the students' motivation would lag when faced with such a large amount of work for so low a pay-off. Remember, it is the number of papers turned in, not the number of papers graded, that you should consider in the pay-off v. cost ratio. Weekly summaries would have another advantage, too, because the student will have them when he must review for his examinations.

 Write the name of each student on a poker chip or any other object of which identical pieces come in quantity.

4. After the first papers have been turned in, place the poker chips in a shoe box and ask one student to shake the box and another student to draw out a chip. Conduct the drawing in front of the whole class so that the teacher will not be accused of dishonest drawing. A public drawing, furthermore, quickens the interest of the class. Even the habitually late student may start coming on time if the drawing is done at the beginning of the hour. But if the drawing produces so much excitement that it interferes with the class routine, then it should be conducted at the end of the hour. You will increase the interest and motivation of the students if at the time of drawing you disclose the name of the student drawn. The paper of the student whose name is drawn will be graded that week. Do not place the drawn chips back in the box. Do not tell the student whose name was drawn what grade he received, since it would be unfair to give such accurate feedback to those students whose names were drawn first.

5. The teacher can, after each assignment, give the class an oral summary of the

week's work in order to give the students some idea of the accuracy of the summaries they have turned in. This feedback is necessary to improve the quality of each student's work, since the method, without such aids, would only increase the quantity of the work. If the students make copies (carbon copies if they use typewriters) of the work they turn in, the effect of this feedback should be increased.

6. Next week perform the same drawing and grading (repeating steps 4 and 5). Be sure to give a student a zero or a failing grade if he turned in no paper for the week his name was drawn. In this way, proceed until the end of the semester, and keep all papers-both those that were graded and those that were not graded. On the next to the last week, write the numbers of the weeks on the poker chips and have each student whose name has not yet been drawn draw two chips. The students whose names were drawn during the semester will draw chip by chip until each has drawn a number representing a week during which his paper had not been graded. Those papers that were turned in, on the weeks described by the numbers drawn, should then be graded. Thus each student will have had two of his fourteen papers graded.

The name drawing throughout the semester should help keep interest high throughout the semester. The number drawing at the end of the semester should help sustain the motivation of those students whose names were drawn early in the semester. The number drawing takes care, also, of those students whose names were not drawn during the semester, as well as of those who were absent due to illness.

7. If a student misses a week or more because of illness, then you should withdraw his name—if it has not already been drawn—from the box, and his two papers should be selected through the number drawing at the end of the semester (step 6). In this way, you insure that no paper is turned in without a chance of being graded.

8. After the final drawing and grading, you may turn back the summaries to the students, who may then use them in studying for their final examinations. The teacher should have obtained fourteen papers from each student, and he will have had to grade only two papers per student, chosen at random from all the papers that were turned in. The students will have participated more actively in the class and will have been discouraged from procrastinating, with little loss in quality of their work and with little additional labor for the overworked teacher. That extra time he has gained the teacher can spend on the organization of his material, and in this way he should benefit his students far more than through routine grading.

Let us face, though, some of the possible criticisms this method may incite. Here are six of them.

It is "unfair" to ask a student to turn in a paper that the teacher is not even going to look at. This criticism is really based on the notion that the only function of a paper is in the grading of a student and the correcting of his errors. If you can make it clear that a student profits from the preparation and writing of a paper and that from thus working throughout the semester he procrastinates less, then this criticism is going to be voiced more weakly. If you have made the grading method clear to the students in advance, then they cannot call it "unfair."

Asking students to produce a large quantity of material will "ruin" the quality of each paper. This criticism implies that the students are already slaving away and cannot be inspired to work any harder or any more efficiently. But, even if this were true, you still ought sometimes to try new training procedures and see if you cannot increase the limit.

Failing to grade each paper will result in a decrease in the quality of the student's work. If the pay-off v. cost ratio is appropriate (see step 2), the work should not decrease in quality since the student will not know which of his papers are to be graded, although he will know that a significant percentage of his final grade will be composed of these graded papers. There is, of course, *some* value simply in increasing production, independent of quality.

The method teaches "gambling" to the students. This is a hard nut to crack with certain people, but you can make it clear that the method is no more gambling than the trinket in the cracker-jack box, than an occasional bonus or raise, than the occasional peek of a mother into the bedroom to see whether her child is sleeping, or than the spot checking of student teachers. If "gambling" is so generally defined that it includes intermittent reinforcement and sampling procedures, it should not be considered universally evil, but a useful device in many situations.

Since the method would enable teachers to handle larger grading assignments, it might get used as a device in even further reducing the already inadequate number of teachers per student. The method has no checks in it that might prevent any such perverted use of it. We can, however, hope fervently that, if it does relieve some teacher of unnecessary grading, the administrative officers will permit, if not encourage, him to utilize this "extra" time in organizing his lectures, planning newer approaches to his material, and advancing his own capabilities. In the long run, the class would profit more from this judicious use of the teacher's time. Most teachers-and we cannot say this too often-are capable of more useful functions than the routine grading of stacks of papers.

Other faculty members may object if the method is too successful. If the class interest and motivation become too high, then other teachers not using the method may attack it. (Student X spends all his time on Mr. A's course and doesn't have any time

for Mr. B's; the worldly students are setting up betting pools as to whose name will be drawn, and so on.) Competition between teachers for students has always been keen and should continue so until the health of the students is endangered. We do not feel you will reach this point without the use of other teaching aids. Unfair competition would be eliminated if all the teachers used the method.

But the majority of these criticisms are not founded in fact, and are simply reactions to the newness of the proposal. We should understand this, because patience and calm explanation should win over even those individuals who initially criticized the method.

Summary

Today, the limit on a student's production is usually set by the teacher's time and ability to keep up with the grading of the large classes he must handle. Intermittent grading removes the unnecessary one-to-one ratio between the number of papers graded and the number turned in, and it shifts the production limit from the harassed teacher to the student, who should be responding to the best of his ability. It does this without forcing an increase in the number of teachers per student and without adding to the overwork of the able teachers we now

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TO CREATE IS TO RELATE

By JACK R. FRYMIER

THE OLD AXIOM that "there is nothing new under the sun" is only partially true. It would probably be more nearly correct to say there is nothing here today which was not here thousands of years ago in one form or another. The only thing different is the way in which these things have been combined; thus nothing is new and yet everything is.

All of the materials in the Empire State Building are not really new. The stone, steel, mortar, glass, copper, brass, rubber, clay, and other things have all existed for millions of years. Not always in their present form, perhaps—the rubber may once have been part of the air or of the soil, the steel was undoubtedly once a hillside, as was the stone—and yet when we see all of these things combined and related as they are, one to another, we feel compelled to say that such a magnificent structure is a new and unique creation. And indeed it is. It is an amazing example of man's ability to create, the only way he can, by relating things.

Looked at from this point of view, a creation is nothing more than the unique relationship of various phenomena. Creativity, then, is relating some things to other things.

EDITOR'S NOTE

It has been our contention that creativity and analysis were not even first cousins. To create and to analyze appeared to suggest functions that were more opposite than apposite. After reading this article, we have doubts. Maybe analysis has a closer connection with creativeness than we thought. The author's viewpoint may not raise eyebrows but we think it will provoke some reassessment of opinion. He is on the faculty of Temple University, Division of Secondary Education, in Philadelphia.

The ability to create, therefore, involves first, "seeing" relationships, and second, putting those relationships into effect.

For example, Edison "saw" the relationship between resistance and electrical current, then created the incandescent bulb. And though man had been aware of time for thousands of years, it took Einstein to relate this factor to distance and thus create a new dimension. In another example, coal, water, heat, pressure, air, and time have been known about for a long, long while, yet it took the concerted efforts of several men to create a fabric, nylon, out of these various things. Still, nylon is nothing more than these elements in specific relationships.

In his book, Animal Farm, George Orwell relates three things (theory of communism, Russian history, and the known characteristics of barnyard animals) which in and of themselves are not especially remarkable, but when related result in a distinctive, unique creation of the highest type.

And if one thinks of great works of art, "The Last Supper" by Da Vinci, for instance, is certainly creativity of the highest type. Still, Leonardo da Vinci did not really "create" the last supper; it had been lived by Christ over a thousand years before, besides being recorded by several men in various books of the Bible. Nevertheless, it took Da Vinci to relate color, line, proportion, and thought; it took Da Vinci to create this masterpiece for all mankind.

Almost any novel contains roughly the same number of words and usually the very same words as does a literary classic, yet the sequence in which these words are related to one another leaves little doubt as to which is the more enduring and more highly creative. Even though a piece of writing be but a synthesis of various other works, if the author relates each of these

parts to various other selected parts, he creates something new and entirely different. The very foundation of science and scientific journals rests on this very process.

In the business world, men who can see relationships between opportunities and needs are those who are most successful. Diamond Jim Brady, for instance, was well aware of the relationships of the west, railroad cars, and certain personality traits. These he brought together in unique ways and created a fortune. Most businessmen who have been successful have been able to "see" similar relationships. One might say that the successful businessmen could be distinguished from those less successful by this very ability.

In the field of law, the Bill of Rights is nothing more than a specific elaboration on the relationships of the individual to the group—the sphere of government to the sphere of man.

There can be little doubt that the same ingredients go into a good cake as into a poor one. It is the way in which these ingredients are related to one another by the factors of sequence, proportion, and time which gives further illustration of the creative abilities of a good cook and a mediocre one. A cake which is mixed correctly but baked too long will not be good, nor will the one which is baked the proper time but which has too much shortening turn out all right. The relationships must be precise in all respects.

Finally, water is more than a combination of hydrogen and oxygen. It is a dynamic, reciprocal relationship in which each of the molecules involved depends upon and contributes to the other aspects of the whole—they are related.

All of these examples are pointed up to illustrate one point: To be creative one must relate. And it naturally follows that to be creative one must first be able to "see" relationships, and then to effect them by various means. The only materials with

which one can work, however, are those which already exist. It is not necessary to "pull things out of the air," though frequently this is the prevailing impression about creating. So often people are encouraged to "be original" and to "work on their own," and yet the greatest examples of creative effort are not "original" at all, except as they are examples of unique relationships. Shakespeare's King Lear, Da Vinci's "The Last Supper," Milton's Paradise Lost, Goethe's Faust, Handel's The Messiah, Goodyear's vulcanized rubber, Morse's telegraph, Fulton's steamboat, Eastman's camera, were all but relationships of then existing factors in a unique way. The only way man can create is to take the materials and ideas which already exist and bring them together in new and different ways. These processes, these relationships, then become the creative efforts and the created works.

Those who would help young people become creative persons must contrive situations (create experiences, if you please) which will enable youngsters to understand the phenomenon of relationship; to "see" relationships between various things that already exist. Further, these young people must then be encouraged to relate things—ideas, materials, events—themselves. By giving young people opportunities to understand the nature of creativity and to have creative experiences, we can expect oncoming generations to develop unique creations of their own—to be creative.

To help young people become creative, teachers and parents and all who work with them must point out relationships which already exist, encourage analysis of situations and circumstances to discover additional existing relationships, and devise situations wherein the development of new and unknown relationships of various things can most readily occur. This will help develop and maintain a continuing source of creative potential—our nation's young.

Shall We Junk the Home Room?

By MARJORIE CUPP

To have or not to have home room has caused many a verbal battle in our junior high school. Some of the questions asked at California Junior High were: Should home room be limited to ten minutes or extended to a longer period of time? Should it come at the end of the day or after lunch? What are the objectives of a home room? How can it be successful without a curriculum? And, finally, should the home room be abolished or is it here to stay?

After these questions were booted around by the teachers of California Junior High School, the teachers reached certain conclusions. The beliefs of the majority were found to be in accord with certain fundamental truths of education: First, every child should be provided with the opportunity to develop his capacity for learning to his fullest potential. Second, a normal adjustment of the individual should include much more than mere "book larnin'." There should be opportunity to awaken, strengthen, and stimulate social tendencies that develop character and are acceptable to our society. And last, each child should have a sense of belonging. To have friends, to have a sense of well-being, and to know that others care are essential to happiness. Educational goals can mean nothing in an empty life. There has to be a feeling of security in order to maintain a healthy emotional balance so necessary to successful living.

Where else but home room would a teacher find a more opportune place to make friends with children and help them become completely orientated to the group and to the school? In view of the foregoing facts, we decided that home room should not be abolished, but the faculty was still confronted with the problem of making it workable for everybody.

Time was reserved at a faculty meeting for a panel discussion on home room. The teachers who were asked to participate in the panel discussion told what they accomplished in home room and how they did it. Various questions were asked from the floor and opinions, pro and con, were voiced loud and long.

In an effort to determine where we were going and why, committees were formed to study the problem on each grade level—seventh, eighth, and ninth—to analyze what could be done to make the home-room program a more workable situation that would justify the time and effort spent. The committees met throughout the year, investigating textbook material and audiovisual aids. They were agreed that a definite curriculum was needed, particularly to guide the beginning teacher.

EDITOR'S NOTE

Years ago we ran'a survey of teachers and pupils in one of the nation's largest secondary schools. It was on the desirability of the home room, which the school had scheduled for many years. There was only one question asked: "Shall we continue the practice of scheduling a separate home room or shall we combine it with the firstperiod class?" Results showed that a majority of teachers favored the combination, but that most of the pupils voted for the separate home room. Before we kill the home room, should we ask how students feel about it? or is an administrative decision on the life and death of the home room sufficient? Just one other thought-in no other country of the world do secondary schools have home rooms. It is a unique American institution; and we don't know whether that's important or not. Our author is a teacher at California Junior High School in Sacramento.

As a result of these efforts a handbook was compiled by one of the teacher-counselors, presenting an analysis of the situation and outlining a curriculum to be used on each grade level. Much of the information that follows has been gleaned from that handbook.

The basic purpose of the home-room program is divided into four main areas: orientation to school citizenship, educational guidance, personal and social guidance, and vocational guidance and safety. In elaboration of these, the following objectives were set up for development in the home room:

- To facilitate certain aspects of the administration of the school
- (a) To make administrative announcements and to convey information to parents and pupils

(b) To discuss and explain administrative policies and practices

II. To supplement the curriculum in the following areas:

- (a) Good manners
- (b) Personality and character problems
- (c) Citizenship
- (d) Parliamentary procedures
- (e) Study habits
- (f) Vocations
- (g) Problems of safety and accident prevention

III. To promote pupil participation in extraclass activities

- (a) Contributions to extraclass activities by the home room
 - (1) Stimulation of pupil interest in clubs, assemblies, athletic teams, and music organizations
 - (2) Assistance to pupils in selection of activities
 - (3) Assistance to pupils about type and values of activities
 - (4) Registration of pupils for activities by home-room teachers
- (b) Activities carried on by the homeroom group:

- (1) Organizing and presenting programs
- (2) Serving as a basic unit for the pupil government of the school
- (3) Providing teams for intramural competition in debates, athletics, and so on
- (4) Forming competitive units in school campaigns and drives of various types

IV. To provide opportunities for guidance

- (a) Planning of one's educational program
- (b) Vocational opportunities and choices
- (c) Good manners
- (d) Boy-girl relationships
- (e) Problems related to education beyond high school
- (f) Continuation in school beyond junior high school
- (g) Character problems
- (h) Problems of mental and physical health
- (i) Getting and holding a job
- (j) Problems of accident prevention and safety

V. To provide opportunities for developing desirable social attitudes and character traits in the pupils

- (a) Program of study and discussion topics to cover the following:
 - (1) Good manners
 - (2) Conduct at school parties and other social functions
 - (3) The forming of friendships
 - (4) Problems of appearance and dress
 - (5) Control of one's emotions
 - (6) School citizenship and attitudes
 - (7) Leadership skills and related qualities
 - (8) Good sportsmanship

VI. To assist in the development of desirable pupil attitudes toward the school and its program and to personalize the contacts of the pupil with the administra-

tion and with the educational activities of the school

The need for guided behavior is great on the adolescent level and if left to chance usually deteriorates. The program presented here attempts to present some basis for a co-operative venture in home-room planning which can be adopted without involving many hours of research by the home-room teacher.

For the most part, preadolescents are involved at the seventh-grade level. The girls are developing faster than the boys and new cliques begin to form. Adjusting to new friends and groups and formulating new relationships with the family and the community are most important. For these reasons emphasis in the seventh grade is on orientation. The textbook, About Growing Up, part of the National Forum guidance series, is an excellent introduction to the junior high school. Each chapter may be supplemented by movies and filmstrips. School policy is presented from another handbook available to all teachers. So You Were Elected by Virginia Bailard deals with training in parliamentary procedure and the responsibilities of class officers. The use of personal and social guidance books is another important phase of the seventhgrade program.

The eighth-grade program, besides including the four general areas already mentioned, devotes a great deal of time to the study of occupations. This is accomplished by reading, individual reports, committee work, class discussions, motion pictures, and interviews with people on the job. To enrich further the curriculum at this level, the text. Human Relations in the Classroom -Course I, by H. Edmund Bullis and Emily E. O'Malley may be used to great advantage. Few texts present such a unique way of teaching acceptable behavior and of establishing healthy relationships with fellow associates. Chances for worth-while evaluation are unlimited.

The program for the low ninth is one primarily concerned with vocational and aptitude testing. This testing, however, is not for the purpose of urging pupils to make a specific vocational choice at this time but rather for the purpose of arousing their interests and assisting them in beginning a self-evaluation regarding occupational information. With the completion of testing, guest speakers from various fields are invited in to talk.

Home-room officers are elected at the beginning of each semester. These include president, vice-president, secretary, treasurer, council representative, alternate representative, sports representative, home-room reporter, and yell leader. The duty of the council representative is to attend the student council meeting headed by the student body executive board once a week. He then reports back to the home room during a business meeting pertinent student body affairs and activities. In this manner every home room has a voice in school government and policy.

The home-room period is thirty-five minutes long and meets the first four days of the week right after lunch. On Friday all students, with the exception of low sevens, elect either clubs or a study period. Low sevens have study besides lessons in ballroom dancing and etiquette.

Included in the handbook are samples of weekly schedules for each grade, which the teacher may modify according to the class. It has been quite successful to hold business meetings once a week and have a very short business meeting and program the alternate week. Typical activities include reports, panel discussions, plays, debates, class variety shows, dances, hobby shows, contests, and anything the group can plan that will demand participation and organization.

Home room is not a panacea for all the trials and tribulations of teen-agers. But it is a secure, familiar place to go for three years, where each can feel he belongs and is wanted, a home away from home. It is a place to enjoy friends, take problems, and plan for the future. Above all, home room is a place to develop character and discover abilities, and in our school it shall not be junked—it's here to stay!

How Large a Class?

By DONALD W. ROBINSON San Francisco, California

Beardsley Ruml, who achieved national recognition some years ago for his proposal of the withholding tax to make the payment of income taxes less painful, has more recently offered a proposal for increasing the efficiency of school operation. Traditionally, he says, schools and colleges distribute students in classes of a size which can scarcely be justified on either educational or financial grounds. The typical forty-student-class is much too large to permit of individual instruction, much too small to represent an economical unit for lecturing or other forms of mass instruction. The only obvious justification for a class size of thirty to forty seems to be convention. Classrooms have customarily been built to accommodate about forty desks. Many teachers have habitually assumed that it is difficult, if not impossible, to "handle" more than forty students at a time.

It is quite apparent that the class-size problem for colleges is very different from the problem faced by high schools. The lecture method enjoys very limited acceptance in high schools. Here the current approach of seeking more money for more teachers to reduce class size may probably be the best one.

However, in the face of continuing teacher shortages and favorable reports of successful instruction by television, it might be profitable to re-examine our thinking with respect to optimum class size for high-school teaching.

Five classes daily of thirty-five students each meeting five days a week may be said to constitute one teacher's load. This is twenty-five teaching periods a week. Theoretically these twenty-five teaching periods could be arranged to meet the same 175 students in the following variations:

- One lecture a week to all 175 plus four class meetings with twenty-four classes of twenty-nine students each.
 - 2. Two lectures a week to all 175 plus four class

meetings with twenty-three classes of thirty-one students each.

- Two lectures a week to all 175 plus three class meetings with twenty-three classes of twenty-three students each.
- 4. Three lectures a week to all 175 plus two class meetings with eleven classes of sixteen students each.
- 5. Five lectures a week to all 175 plus two class meetings with ten classes of eighteen students each.
- Five lectures a week to all 175 students and one class meeting with twenty classes of nine students each.

For "lecture" we may read "demonstration," "film," "TV program," or other type of mass communication.

Many high schools include a medium-sized meeting room which can accommodate up to 200 people and which is frequently not fully utilized.

Obviously no variation of the standard class size can be applied indiscriminately throughout the school. Yet for one department or for one curriculum segment, such as certain solid subjects in the last two years of the college preparatory program, further experimentation with variations of class size might prove profitable.

One way to achieve smaller classes when smaller classes are essential is to accept larger classes when larger classes are feasible. Many other possible combinations of large and small groups exist than the six listed above. They are merely examples of many possible variations. In some schools limitations of space or scheduling problems may preclude the possibility of experimentation.

In how many classes in your school would the student profit more from three lectures or film or TV demonstrations a week and two class meetings in a class of from fifteen to twenty students than he does from five meetings a week in a class of thirty-five?

High Schools and Teacher Recruitment

By FRANK NANIA

IN SEPTEMBER, 1957, approximately 40,000,000 boys and girls, the largest number in our history, responded to the ring of school bells. Kindergartens and elementary schools, both public and private, reported an estimated enrollment of 30,670,000 pupils, a gain of almost 1,000,000 over the previous year. Our high schools reported an estimated enrollment of 8,424,000 pupils, a gain of 600,000 over the figure reported a year ago.

As a result of this bulge in school enrollments, the teacher shortage has become extremely critical. Last year's reported shortage of teachers was 120,700. This year the number of new teachers needed to fill our classrooms will jump to approximately 135,000. Because of the acute shortage of teachers, classes are generally larger and many teachers with substandard certificates have been pressed into service. In 1956, approximately 90,000 teachers with substandard certificates were hired. As a result of the increase in enrollments the number of professionally unqualified teachers hired this year will undoubtedly be greater.

EDITOR'S NOTE

No question about it, an adequate supply of competent teachers is our greatest educational need in schools at all levels—elementary, secondary, college, university. One aspect of this great problem lies in recruitment of potential teaching candidates while they are still in high school. What can a teacher do to encourage able youth to plan for a teaching career? The author describes what some schools are doing about this. He is assistant professor of education, State Teachers College, Cortland, New York.

One of the most critical problems in American education today, therefore, is the task of recruiting the large number of young people needed to solve our teacher shortage. Unless definite recruitment efforts are made, millions of our children will be robbed of their right to enjoy the educational experiences they are entitled to.

Our high schools can and must play an integral part in the discovery of young people for the teaching profession. The high-school teacher is in a strategic position to assist in the recruitment of teachers. Whether they like it or not, teachers are responsible in large part for the attitudes that pupils have toward the teaching profession.

As one poet so aptly stated:

No printed word nor spoken plea Can teach young hearts what men should be, Not all the books on all the shelves But what the teachers are themselves.

Some of the personal qualities that all teachers should possess are: (1) a genuine interest in children and their problems, both scholastic and personal; (2) self-control and poise; (3) tact; (4) a sense of humor; (5) impartiality and consistency; (6) physical and mental fitness; (7) friendliness; (8) neatness; (9) knowledge of subject matter; (10) the keen desire to do more than just that which is expected.

Most secondary-school pupils are in need of vocational guidance and often turn toward their home-room teachers for advice. The teacher should point out the attractive attributes and many worth-while challenges found in the teaching profession. Very often high-school teachers stifle pupil interest in teaching as a career by failure to point out the many attractive and gratifying features of teaching, or by the negative remarks they make relative to teaching.

Allowing high-school pupils the opportunity to observe and to do exploratory teaching in elementary schools has proved a successful technique for getting young people to select teaching as a career. Several times during the school year the various high schools in San Diego, California, select three pupils from each high school to visit elementary schools near their high schools for half a day.1 Pupils are selected by one of the following methods: (1) they are chosen on the basis of personality and likely achievement by recommendations submitted by senior counselors, California Scholarship Federation sponsors, vice-principals, teachers, and fellow students; or (2) they are chosen by their fellow pupils and teachers who are asked to recommend the outstanding pupils according to a list of personality traits which is submitted to them.

Each pupil who is selected is then given the opportunity to visit an elementary school near his high school in order that he may better understand the contributions of education and the advantages in becoming a teacher.

Before the pupils make their visits the high-school principal stresses the honor of being selected not necessarily for recruitment but for the opportunity such a visitation will provide the pupils to interpret the teaching profession and the opportunities to be found in teaching to interested classmates. Principals in the elementary schools involved in the project then explain the attitudes and responses of typical children within the age groups the high-school pupils will observe, and they point out the objectives of the classes to be observed. All visits are followed by meetings by the principals with the pupils in which experiences, opinions, suggestions, and questions are dis-

The city of Salem, Oregon, has formu-

lated the following list of activities for student observers:²

- 1. Observation of the elementary class to see which individuals are particularly noticeable for any reason. First observation might be concerned with physical qualities only, but later other characteristics which easily distinguish a child will be noted, as, for example, social qualities, evidences of interest or lack of interest, emotional problems.
- 2. Observation of one particular child during a certain period of time to see how he reacts to all his environment. First observation might be of a child with no particular problem. A later observation might be of a child with a definite problem.
- Observation of the physical features af the room-lighting, ventilation, seating, decorations, furniture.
- 4. Observation of classroom routine—passing of classes, care of materials, distribution of materials, care of wraps, taking of attendance, pupils' responsibilities.
- Observation of children at play, noting children who play well, those who participate little, those who are overly active and aggressive.
- Watching the teacher's techniques for gaining attention, meeting individual differences, maintaining discipline, and stimulating interest.
- 7. Watching the teacher plan with children.
- 8. Watching the teacher as she teaches reading, arithmetic, spelling, and other aspects of the instructional program, to see the variety of techniques as they are applied to different situations.
 - 9. Watching the administration of a test.
- 10. Going with the teacher and the class on a trip, observing planning for the trip, and hearing later discussion of what was noted.
 - 11. Attending a teachers' meeting.

² "The Tentative Program of Cadet Teaching in the Salem Public Schools." Reported by Alwin V. Miller, "Recruitment in the Classroom," Phi Delta Kappan, XXXVII (March, 1956), 235-37.

² Frank G. Tait, "Finding Teachers for Tomorrow Is up to Teachers of Today," Nation's Schools, LIII (March, 1954), 50-52.

The high-school pupils are given one-half unit of credit for each semester they participate in the program. Credits thus earned are counted as electives and may be applied toward the total needed for graduation.

The city of Indianapolis, Indiana, has a cadet teaching program.² The aims of the program are: (1) to interest high-school juniors and seniors in teaching, and (2) to give high-school pupils interested in teaching prevocational information and experience. Pupils with average and above-average scholastic records are permitted to take the course and may earn as many as two credits in social studies. Those enrolled in the course are scheduled for one period a day in a nearby elementary school.

The pupils who have participated in this program have reported the following values received from the course: (1) personal satisfaction in watching and helping children learn and grow; (2) greater appreciation of individual differences; (3) pleasure from helping to develop good American citizens; (4) realization that a different approach must be used in each case; (5) discovering that it is fun to help; (6) greater understanding of the teacher's responsibility to mold individuals; and (7) satisfaction from accomplishing something worth while.

Another effective method that can be used to aid in the recruitment of young people for teaching is the formation of Future Teachers of America clubs. Under competent leadership and with the whole-hearted support of school administrators, this organization can do much to interest young people in the teaching profession.

Among the many activities that the F.T.A. can engage in are: (1) sponsoring special displays or exhibits on teaching throughout the year, with special emphasis during American Education Week; (2) planning special tours to nearby teacher-training

In order to insure the success of a Future Teachers of America club, it is extremely important that the teacher chosen to sponsor the club be interested in the club, be capable, and have a high regard for the teaching profession. Also, the club must have the support of the entire school staff.

Wholesome teacher-pupil relationships, opportunities for observation and exploratory teaching, and the sponsoring of Future Teachers of America clubs are probably the three most effective techniques that can be used to encourage young people to select teaching as a career. Other techniques which can be used to bolster these are: (1) placing greater stress in the guidance program on the opportunities that teaching offers young people and making available to interested pupils information on college admission procedures, entrance examination dates, special fields of teaching, and costs; (2) offering an introductory course in education or a unit in social studies on the development and significance of education in the United States; (3) having a wellplanned career day where pupils are told of the opportunities and rewards of teaching; (4) using the school and community newspaper and radio to publicize notable achievements of local teachers and recent graduates of the school now teaching else-

institutions and having college representatives visit the high school; (3) bringing outstanding educational leaders from the surrounding area into school to speak; (4) showing appropriate films dealing with teaching; (5) planning special assemblies and community programs so as to give the general student body and the community a better understanding of the teaching profession; (6) visiting local elementary schools, acting as teacher aides, and doing exploratory teaching; (7) planning panel discussions on teaching, bringing in former students of the high school who are now attending teacher-training institutions to share their experiences; and (8) promoting teacher-education week.

⁸ Florence Guild, "Cadet Teaching—a Step Toward Solving the Teacher Shortage," Nation's Schools, LI (May, 1953), 79-80.

where; (5) providing literature for the school library and home use on the opportunities and advantages found in teaching; (6) having high-school pupils prepare programs for presentation in elementary schools; (7) having local faculty associations, P.T.A. groups, and civic organizations provide scholarships for worthy high-school pupils who plan to teach; (8) having various departments in the school sponsor contests stressing the importance and dignity of

teaching as a career; (9) sponsoring studentteacher days; and (10) enlisting parental and community support for the recruitment program.

The primary objectives of the program are to develop a genuine interest in and respect for the teaching profession among young people. Isolated activities are apt to bring disappointing results and, if uncoordinated, they may fail to bring about these desired goals.

A Case Against Merit Rating

Which method is to be used in evaluating the teacher who may be deserving of merit advances? Can it be done by an objective mechanical device such as UNIVAC? What criteria determine the superior teacher? What individual or group of individuals is capable of measuring teachers objectively? What happens to prejudices, biases, personality clashes? Can we find human beings bereft of these human frailties?

These are not matters which can be considered lightly. If we are going to keep teachers in the profession we must allow them freedom to act independently and courageously without artificial restraints which have the effect of stifling good teaching.

The good citizen is the product we are to produce in our schools. Yet the educator exerts control and influence over his student for just a few short hours each day. Many more factors tend to affect that product: his home, church, friends, movies, TV, comic books, to mention a few. Is the teacher to be held entirely responsible for the finished product? Then, which of his teachers do you reward or punish for the result? When is the product fully completed?

All this, what the merit system will impose upon teachers, seems to be reducing the work of the professional to that of a lathe operator. The supervisor becomes an inspector, rather than a leader. Merit fails to recognize individual differences among children; rather it tends to the manufacture of industrial dies and the standardization of parts.

I am sure that all who are sincerely interested in teaching want the best education for all our students.

Are there other ways of getting the best? I offer for your consideration some recommendations which I believe would help solve the problem: 1. The underlying issue of merit rating is teachers salaries. Communities and boards of education, therefore, must be willing to pay the price for the most precious professional service—the education of the children of the community. Through a liberal salary policy such local districts would certainly attract the best qualified personnel.

a. Greater selectivity in the recruiting of new teachers should be widely encouraged. Local FTA chapters and clubs should carry on vigorous recruitment campaigns designed to bring in the cream of student bodies.

3. Teacher preparation institutions should improve their curriculums by the revision of old and the development of newer and more realistic courses of study with emphasis on interneship programs.

4. State education departments should raise standards of licensure and certification, following such suggestions as those advocated by the National Council on Teacher Education and Professional Standards.

5. Let administrators and boards of education guard sacredly the privilege of tenure. Only those who have proved themselves during the probationary period should be given this final stamp of acceptance. (In this instance a merit system should not be introduced as the remedy used by the farmer who closed the barn door after the horse was stolen.) However, supervisors, principals, and administrators should take the new teacher under wing through a program of orientation lasting the full three years of probation, not three weeks.

6. Teachers should be encouraged to improve teaching methods through worthwhile in-service training and additional formal education and travel and free movement in the development of new techniques and experimentation.—Matthew E. Gaynor, in New York State Education.

Treanor Writes Two

EDITOR'S NOTE

Humor has many facets, thank heaven! Treanor's type, we think, is succinct, off-beat banter. He is master of the Francis Parkman School, Jamaica Plain, Massachusetts.

THE CUSTODIAN

A good man to know. Like teachers, custodians vary. Some are good housekeepers, others sweep under the rug. If you are fortunate to have a good one, be grateful for all small favors.

Theoretically, the custodian (incidentally, he is never called "the janitor") has nothing to do with the academic side of the business. Practically, he has a great deal to do with it. For example, he will help you with bulletin boards, desks, the arrangement of your room. He can be very handy with a small tool. He knows all about heating and ventilation. He's not above discussing that awful Smith boy. If he's been around any length of time, he knows whole families, their strengths and weaknesses. He's used to sick pupils and, if the nurse is not on hand, a good one in an emergency.

A man to ingratiate, not meanly of course, but fair and square and above-board. If you're interested in men (for the feminine members of the staff—since you are interested in men), here's a tip. The best way to the custodian's heart is through a neat room. Especially, my friends, the floor. We recognize the necessity of dust and a bit of disorder. The immaculate room is a dead giveaway: nothing goes on. But in the ordinary wear and tear of a school day, a certain amount of clutterance is par for the course. The custodian understands and will respect your problem.

What he doesn't like, and you had better understand it at once, is a floor knee deep in rubbish. While we indulge in poetic exaggeration we nevertheless decry a floor littered with tiny fragments—papers, nubs of pencils, small crusts of jam sandwiches—in short, the accumulations of thirty or forty human beings who inhabit one small room.

Then, too, he dislikes to rearrange furniture every night. He dislikes the job of pulling all the shades to the halfway mark. He dislikes having to shut all the windows in the building.

Finally, he dislikes being importuned for more heat. It's really not your province to make such demands—that's the principal's job, and perhaps it would be well to leave it to him. If you're cold, work harder, put on a sweater, or, if it's a real grievance, speak your piece in the office. After all, the custodian just works there, too.

In a nutshell, respect the experience that a custodian has garnered. If you meet him halfway, he will more than co-operate.

One hint: don't ever try to boss him. Custodians have long memories. They have seen a succession of teachers, and while you may think you're pretty sharp, remember—there were heroes before Agamemnon. In short, custodians don't push, but with a little genuine friendliness, they give. And on occasions they can give a lot.

SARCASTIC LANGUAGE

The last resort of a weak disciplinarian. It is wrong for these reasons: 1. It takes unfair advantage of those who may not or cannot respond. 2. It is a public confession of weakness. 3. It often causes irreparable damage to the rapport that should exist between teacher and pupil. 4. It is scarcely original. 5. And your vocabulary being undoubtedly limited, it is so monotonous.

While we do not belong to the lollipop school, we have long since learned that boys and girls respond to sugar and molasses. Maintaining discipline is not easy; for where one monster is slain, ten arise to do battle. However, there are many weapons at your command—and a sharp tongue, while it may have a well-honed edge, isn't one of them.

A direct incisive word requires, upon occasion, immediate utterance. But the language of personal vituperation has no place in the school. The world is filled with shrews, termagants, bullies, and sundry ilk. School, for you, should be pleasant and, for pupils, the happiest of occupations. Hence if you find your natural abilities most profitably employed by the language of sarcasm and contempt, you don't belong in the schoolroom—where, we do not presume to say.

Circle Stretchers Create New Incentives

By S. T. Scott San Antonio, Texas

Prior to the Supreme Court's decision of May 17, 1954, Douglass Junior High School, San Antonio, one among the many Negro schools in a segregated school system of the south, was a part of what might be called a circle within a circle. The smaller circle surrounding the Negro school offered a very limited number of incentives for the boys and girls it encircled. The larger circle encompassed an area of opportunities and incentives open generally to students in the non-Negro school. The fact that the smaller circle was surrounded by the larger gave opportunity for the very determined Negro boy and girl to gain full recognition if and when they were able to stretch their encirclement to the breaking point.

Our school is now a part of a school system that has made definite progress toward integration. Being a part of such a system has created for our boys and girls not a new circle that offers greater incentives but a realization of the fact that boundaries limiting the size of the old circle might be stretched to the point that they will someday be lost in the ever expanding large circle.

The following are some of the circle stretchers in our school district and community helping to create new incentives for our boys and girls:

The expression "city wide" as it relates to school and community activities has taken on a more realistic meaning since it now includes, in increasing instances, all boys and girls.

Awards, covering larger areas of competition, won by our boys and girls in special fields, such as music, art, and sports, have created a better contributing attitude on the part of our students.

High scholarship records maintained by some of our former students who have entered recently integrated schools have served to instill in our boys and girls a greater desire to compete scholastically.

The fact that tax-supported city facilities are now open to all people who are citizens of our community has given our boys and girls a greater sense of belonging. They are beginning to substitute "our" for "their" when referring to activities and facilities supported by local taxpayers.

The fact that our boys and girls are now enjoying the privilege (through invitation) of participating in competitive activities requiring skill and scholarship sponsored by private organizations has enhanced, to an even greater degree, their desire to achieve and contribute.

Such circle stretchers, well at work in a number of southern communities, offer a great challenge to the entire south to give all of its boys and girls room enough to mature properly. Once they mature properly, they will not be awkward in their association with other people. They will realize the importance of relationships, to the extent that they become obligated to see that the families they head or influence understand and respect the rights of all people.

Properly matured individuals, if given the opportunity to make their maximum contribution, will accept as routine their responsibility to help see that every person has the same rights that they want for themselves. The schools of the south can and must shoulder the responsibility for setting the pattern that will develop mature individuals. Only mature individuals who are products of an enlightened community can build for America a circle of incentives that will net for her the many potentials that heretofore have been crushed in small encircled areas.

SPUTNIKS AND EDUCATION

EDITOR'S NOTE

The mood of the people is serious about sputniks. Even the word itself, unknown eight months ago, is a household commonplace. The question to which this series of articles is addressed is: what is and will be sputniks' impact on education? Obviously, not all of us are agreed on an answer. But there are some common threads running through the fabric of opinions of informed citizens and educators, and they may be stated in capsule fashion as:

1. No crash program, please! Education has helped make America great, and though school programs need evaluation toward continuing improvement, it doesn't

make sense to try to redirect school programs impulsively.

2. We need to have more detailed and valid information on Russian schools, their programs and enrollments. A start has been made as a result of two bulletins on the topic and observations of experts who have visited Soviet schools. However, much more remains to be done.

3. Ways have to be found to encourage able students in secondary schools to study advanced science and mathematics and to pursue careers in them. But we can hardly do this without increased competent services in teaching and guidance. Since only half of our able high-school students go on to college, some system of scholarship aid is essential to overcome the present waste of talent.

4. Pontifical and sometimes unfounded statements in the press by uninformed spokesmen give a biased appraisal of education. There is no sense to make a scapegoat of education. People who sound off seldom visit schools to find out whether

schools work at their job or "entertain."

5. More money for education may not be the whole answer to school improvement in America but it is a major part of it. Schools are a reflection, not a determinant, of our society. When we spend more on luxuries such as liquor and tobacco, it looks as if we like education but are less enthusiastic about supporting it financially. Seventy-five cents of each person's tax dollar goes to the federal government, yet Uncle Sam spends less than 4 per cent of his tax revenues on education.

These are only a few of the critical issues in education that the sputniks have

zoomed into prominence.

Sputnik Is Good If

By GEORGE E. SHATTUCK

PRINCIPAL, NORWICH FREE ACADEMY, NORWICH, CONNECTICUT
PRESIDENT, NATIONAL ASSOCIATION OF SECONDARY-SCHOOL PRINCIPALS

I BELIEVE we are concerned about Sputnik, not because the Russians have succeeded in placing a satellite over our heads before we have but because Sputnik is a symbol of a threat to our democratic ideals and our American way of life. The first reaction was one akin to panic. As soon as we could control our vertigo, we began to talk crash programs. We were told that the Russian program of education was much superior to ours, that Russian youth accomplish in ten years more and better than we do in twelve, that the American high-school program was a dismal failure, and that we better mount our steeds and ride off in all directions before it is too late. Along with

a good measure of drivel, there are undertones of realism that we must face up to.

First, we need better understanding of the educational implications. Let's note that the comprehensive high school is a peculiarly American institution. It is in harmony with some fundamental beliefs; i.e., it is right and desirable for youth of all classes, economic levels, races, and creeds to associate together in a learning situation. We recognize, too, that children differ widely in ability, interests, goals, and learning potential. It is one of the great achievements of American education that the comprehensive high school evolved from what was formerly an institution designed to meet the needs of the well heeled and wellborn. Today's school, with its required program of general education, supplemented by a variety of specialized offerings affording a reasonable freedom of choice to its students, is a potent force against differences in race, creed, economic status, and social cleavage. In contrast, the Russian plan of operation, which is similar to the European educational structure, smacks of predetermination and exploitation by the state. At the age of ten, the chips are down and the youngster succeeds or fails in screening tests and goes then to a demanding program leading toward professional training or he heads toward training on the technician level or, if proved incompetent for these levels, he is quickly absorbed in industry, agriculture, or the military in routine assignments. Quite naturally the selected group learns rapidly and perhaps effectively -that last has yet to be proved-and, controls being what they are in a communist dictatorship, the people like it. And they had better like it, too, even on the lower levels of operation.

Another factor that we must not overlook is the relative interest in education, measured materially, of American society and the Russian leaders. In America, we have for years decided, as a nation, to spend more money on liquor and tobacco than on education. In Russia, the head men have decided that education is important and money is no object. For nearly forty years, the U.S.S.R. has spent a larger proportion of the gross national product on education than has America. There the head men tell the people how it's going to be, and who goes to what school for how long. Here, in addition to the official leadership of boards of education and school administrators, all kinds of unpredictable and frequently irresponsible mandates from self-appointed experts and self-seeking pressure groups pull and haul our educational wagon in all directions at once. There are forty-eight different state systems and thousands of local districts. Please do not leap to the conclusion that I would prefer the Russian way. Far from it. I would like a re-examination of our scale of values that would result in more generous support of public education; in that issue, I envy the Russian educators. But I would resist, with all my strength, any aping of the Russian plan of looking to the state for decisions concerning the educational future of my ten year old or yours.

And I am unhappy that there are so many people in high places-people who should know better-who have pin pointed the American high school as the center of all our educational ills. One would think that the entire system of American education consisted of grades 9 to 12 and there were no elementary schools or colleges. Where, may I ask, do the critics of the high school think the students come from, if not from the parents and then the elementary grades? And where, may I ask, do they think our teachers come from-those teachers who are criticized so severely as incompetent and uneducated-if they do not come from the colleges? Arthur Bestor of the University of Illinois, who has laced the high schools unmercifully in News Week and other publications, is a history professor. Some of his students are no doubt teaching in Illinois high schools. I wonder if he exempts them from his ill-founded gripes?

And then there is Rear Admiral H. G. Rickover, a man of such attainments in science and engineering that he could develop the Nautilus. There is little of the objectivity of the scientist or the careful evaluation of data of the engineer apparent when he says (as quoted in Time for December 2, 1957) that the American high schools teach "Tife Adjustment' and 'How to know when you are really in love,' instead of French and physics." He also says, "Some American high school graduates never get beyond quadratic equations, but every graduate of the European science-mathematics secondary school must be familiar with differential and integral calculus, analytic geometry, application of mathematics to physics and spherical trigonometry." What he does not say is that the European schools are highly selective, and he disregards the millions of kids who never get to see the inside of one. While here we have one of our greatest scientists unscientifically pontificating that we teach life adjustment instead of French and physics. What rot! The statistics from the United States Bureau of the Census and the United States Office of Education show that during the period 1900-1954, there has been a 50 per cent increase in total United States youth aged 14-17; a 1,200 per cent increase in youth enrolled in grades 9-12 in public schools; a 200 per cent increase in actual enrollment in high-school physics; and a 1,100 per cent increase in actual enrollment in highschool chemistry. It is true that in 1954-1955 (latest available figures) 23 per cent of the high schools in the United States offered neither chemistry nor physics. This figure is often quoted. What the scatter-shot artists fail to say is that the 23 per cent of the schools are mostly small schools which enroll only 5.8 per cent of all high-school seniors. It is obvious, therefore, that nearly 95 per cent of all high-school seniors have the opportunity to take chemistry and physics. I conclude that the admiral is as competent to comment on secondary education as I would be to run his submarine.

And in the same issue of Time, former President Herbert Hoover is quoted as saying, there is the "too prevalent highschool system of allowing a 13- or 14-yearold kid to choose most of his studies. . . . A youngster's first reaction in school is to seek soft classes, not the hard work of science and mathematics. Also he has a multitude of extra-curricular activities that he considers more beguiling than hard work. You simply cannot expect kids of those ages to determine the sort of education they need unless they have some guidance. . . ." As an engineer, Mr. Hoover never built a bridge without knowing the strength of the materials that went into it, nor did he neglect to get down to hardpan for its foundation. I don't know what high schools Mr. Hoover evaluated or observed where the students choose subjects like desserts in the automat or where kids take extracurricular activities instead of subjects. I also should like to know what makes him think, as it appears to be implied, that all kids have the ability to carry a powerful math-science program. High schools today test their boys and girls and can predict, with reasonable accuracy, who can or cannot handle a pre-engineering program. To handle such a program with success, the high school must have (a) a student with better than average ability; (b) a student with sound arithmetic foundation; and (c) a student who is interested enough in mathscience to strive to learn in those areas. If Mr. Hoover thinks that all we have to do is point a finger at one, ten, a hundred, or a thousand kids and say you will take math and science, go on to college, and come out mathematicians and scientists, he has built his bridge of untested material and upon a foundation of sand.

I am concerned about our educational future and I want, above all else, that the boys and girls of America shall have the blessings of freedom. I hold that these blessings may be preserved and enhanced without the use of totalitarian methods found in European education. I think the comprehensive American high school will, in the future, as it has in the past, produce the raw material from which our great scientists and engineers are developed. But to accomplish this task in this competitive world, the American people will have to re-examine their scale of values. They will have to decide to spend more money for teachers, equipment, and smaller classes, and they will have to stop oversimplifying the education problems by merely pointing a finger at the high school. It's high time that American education on all levels—elementary, secondary, and college—work together to produce a program for all American youth, the able, the average, and the handicapped. Of such a thing can come the fulfilment of the destiny of America.

Sputniks Spotlight U.S. Education

By WILLIAM FILENE, JR.

BRANFORD HIGH SCHOOL, BRANFORD, CONNECTICUT

Like it or not we are in a race of technological supremacy with the Communist world and our long term security may well depend on the outcome of this race.

-Donald A. Quarles, Assistant Secretary of Defense, February 28, 1955.

SPUTNIK I AND II have caused a considerable amount of noise in the United States. When Russia first announced she had launched a satellite, many of us felt that this was just another propaganda blurb. Our schedule called for a launching in a year or so, if things went well; how could Russia be so far ahead of us? We soon learned the truth, however, and as if to add insult to injury, Russia launched a second satellite a few days later. Reaction was almost instantaneous; the eyes of the world turned to the United States. How and why had we fallen behind Russia in the missile and satellite race?

Now the spotlight is on American education: everyone is comparing our system to Russia's and showing us where we have failed. Although everyone is talking about it, few agree as to what factors, if any, make the Russian system superior to ours.

The government has issued two publications, Soviet Total War and Education in the U.S.S.R. These publications give important facts concerning Russia's goals and methods. I have substantiated these facts and enlarged upon them through my interviews with escapees from behind the iron curtain. These interviews I completed while I was director of public relations at Villa Madonna College, Covington, Kentucky.

The entire Soviet educational system is geared to gain and hold world supremacy in science. Russian achievements in the missile and satellite race gave us a measure of their success.

Russian children begin school at the age of seven, and from that time on they study under a ruthless competitive program. USSR, the Soviet propaganda magazine distributed in the United States, proclaims that "the guiding principle of Soviet education is that each child is an individual and that capabilities and potentialities can be developed most fully by providing every child with a good basic general background. The educational system is designed to develop the individual talents of each boy and girl." It is interesting to see that they state in the same article that "the courses of study and the teaching methods are uniform for all public schools as are the textbooks." We are constantly hearing of new schemes to provide for individual differences here in the United States; this is how Russia does it.

Students are given periodic achievement exams in subject areas and ability exams in vocational fields to show their natural tendencies. The state then determines its needs, and if the student can meet the requirements he continues his education. He has ten years of schooling behind him when he is ready for college and at least 40 per cent of his secondary school studies has been devoted to mathematics and the sciences. The curriculum in the ten-year secondary school has biology in fourth grade and foreign languages in the fifth. (English is taught in Russian schools; how many American schools offer Russian?) Physics, algebra, and geometry come in the sixth grade, and chemistry is required in the seventh grade. Every student also gets astronomy and calculus in the tenth grade.

As the people learn of the concentration of mathematics and science in the Russian schools, we hear the old cry about too many frills' being offered in American education. The question of balance between the classics and the sciences is an old one. It was John Stuart Mill who said, "The study of science teaches young men to think, while study of the classics teaches them to express thought." While the spotlight is on American education, we must be prepared to give our answer to this question.

Even though there is tremendous weeding out of "inferior" students during this period, the Soviets still admit to a shortage of schools and teachers, requiring sometimes three shifts of students. To offset the shortage of teachers, particularly in higher education, college graduates with high scholastic rating (the top 10 to 20 per cent) are channeled into the teaching profession. Through this method the teaching population is increased 6 per cent while the population of the country is only increasing 1½ per cent. The top brains are not all scooped up into industry; they return to the educational institutions, where they devote their

talents to developing new scholars. President Eisenhower stated that the United States is weak in basic research. Russian teachers, top men in their field, do much of the basic research in the U.S.S.R.

The average Russian student is graduated from high school at the age of seventeen. He is faced with the same problem that American youths must face, draft at eighteen. Those passing the required exams for college and continuing their education are deferred while doing so. If he was unable to pass the competitive exams in high school, he may have taken advantage of the technicum, the Russian cross between our trade schools and junior colleges. Here his training would be 60 per cent practical and 40 per cent theoretical. If he goes on to college, he is told what subjects he will take and what his major will be on the basis of his high-school record. He receives a specialized education while in college. If he is an engineering major, he will have two-and-a-half years of general work in engineering and then three years' concentration in his special area. The school year runs from September 1 to June 20, thirtytwo weeks of six-day instruction averaging at least forty hours of classroom work plus the necessary laboratory work.

Every two or three weeks, he is given competitive exams. If he fails, he is no longer a student but a member of the Russian army. The student is encouraged to go as far as his ability will let him under the competitive system. Every time he completes a course at a technicum, he receives a pay raise. Much of his training, even on through college, is in industry itself and as a result there are close ties between industry and education. The government pays a qualified student to continue his education, gives substantial bonuses for high marks and an automatic 1/3 increase if he is enrolled in engineering. This stipend is increased through the four or five years of college until it approaches the salary he will receive on completion of degree requirements. Six days after graduation he is assigned a special job for the next three years. This is how Russia is graduating twice as many engineers and scientists as the United States, 30 per cent of whom are women.

Many worried citizens have concerned themselves with curriculum differences and have overlooked a very important factor in Russian education—the quality and status of the teacher. The teaching profession, half of which is female, is an important part of the Soviet scheme of life. It consists of the top scholars that Russia produces. All teachers enjoy social prestige far beyond any comparison to the United States and their pay scale is third from the top in the Soviet compensation scale. The two top

scales include top government and military leaders while fellow inhabitants of third place include generals, admirals, and business and industrial leaders. Soviet professors and instructors receive better housing plus two to three times as much salary as their counterparts in the United States.

Thus it is easy to see the importance of education in the eyes of the Russian leaders. They are preparing their students for life in the Russia of tomorrow. We are preparing our students for life in the America of the future. Our methods differ; who is right? Wrong or right it might be wise to keep our eyes on them and see what they can produce besides a victory in a missile and satellite race.

Education for the Free Mind

By SAMUEL A. PLEASANTS

ASSISTANT PROFESSOR OF SOCIAL SCIENCE, FAIRLEIGH DICKINSON UNIVERSITY

THE ARRIVAL OF THE SPUTNIKS in the skies overhead has brought to a climax our growing involvement in world affairs and particularly the cold war. This involvement has raised many questions. One that is being anxiously propounded concerns the adequacy of our educational system in view of Soviet advances in certain fields of science. Should the cold war control the direction of American education? Are we turning out a sufficient variety of experts in such areas as law, economics, science, mathematics? Are we turning out enough students who are prepared to undertake responsibilities in both national and international fields?

The most popular measurement being used at the present time is some form of comparison with the Soviet Union. Thirty to forty years ago there was a fairly general tendency to underrate badly the technical and scientific potential of the Soviet Union. In view of the fact that the Soviet Union of

and torn to pieces by four years of war against a major power, two revolutions, and the coming of three years of civil war, such a tendency may be understandable. At the present time many Americans have apparently gone to the other extreme in overestimating the achievements of the Soviet Union. The function of the American school to assist the development of the individual is being replaced by an emphasis upon "national security."

The American public has been the recipient of a great many statistics on the subject of the Soviet educational system in an effort to understand recent Soviet advances. The Soviet education is said to be more thorough and to require longer hours than does the American system. We are being informed of the vast numbers of "engineers" being turned out by Soviet universities. Many more such statements can be

found by even a casual inspection of the press and journals.

These statistics usually do not take into account some very important debit factors. That there is serious unrest among communist students cannot be denied. There have been riots in Tiflis among the university students over the recent de-Stalinization proceedings, which required military force to put down. Among the major factors in the Budapest rioting were the young students who presumably had known little or nothing except what was believed consistent with communist education and doctrine. Yet many of these students led the rioters against Soviet tanks. The recent street fighting in Warsaw by students at the university over the censuring of their college newspaper again affected what was thought to be the strongest core of communism-the students. Such events as these illustrate the result of education and its effect upon the mind of man. Students begin to think for themselves; freedom of thought and expression becomes essential and worth fighting for. Originality of thought cannot be indefinitely channeled by a decree of the Presidium or the Communist Party Central Committee.

Another possible debit lies in the distribution of scientific talent under the Soviet system. In the Soviet Union the great emphasis since the inception of the first five-year plan in 1928 has been upon the production of capital goods, that is, goods used to produce consumer goods rather than consumer goods themselves, which are practically starved of personnel. In our system the great stress has long been upon the production of consumer goods, with a consequent effect upon our standard of living.

Again we are told that our educational system is not supplying us with enough high-school or college graduates equipped with the knowledge and the point of view to make them good citizens. We are told, for instance, of the Soviet student with his training in languages, which enables him

to travel and adjust himself in different surroundings. We are also told that the Soviet system recognizes the "gifted student" and encourages him, whereas we in this country tend to neglect him. The solution usually advanced is some sort of a "crash program" or intensive training to "catch up with the Russians."

It is well to remember that what a student does in college and, indeed, the factors leading up to his arrival in college frequently represent the culmination of a series of events over as many as twenty years. Another ten years may elapse before the young graduate is ready to assume fully mature responsibilities.

From twenty to thirty years ago we were frequently told that mathematics and science were too difficult for the average public school student, and therefore in many instances these areas of study were either eliminated or greatly reduced, The story of language studies in our elementary- and secondary-school systems has been one of gradual elimination. One of the results of our participation in World War I was to remove the study of the German language from many public schools, while such languages as French and Spanish were greatly restricted. It is doubtful if any public schools offer courses in the Russian language at the present time. The great depression of the thirties brought with it a sense of defeatism reflected in the offerings of public schools, which in many cases were not planned with the superior student in mind. Some of the results of this type of thinking were evident in the early years of World War II, when intensive training programs were more or less hurriedly adopted. Fifteen years later we are able to assay more calmly the long-range value of these programs. It is well to remember. though, that one of the saving graces of the American school system is the freshness of

Henry M. Wriston, "Education and the National Interest," Foreign Affairs, XXXV (July, 1957), 571.

outlook brought by the American youth due to his total environment.

Shortcomings in American education cannot all be attributed to the public schools. It is almost one hundred years since Charles Darwin wrote his famous book on the origin of species-a book that has been bitterly attacked and enthusiastically supported. In either event the book marked the advent of a tremendous expansion of knowledge, for which the colleges and universities were largely unprepared. College education at the turn of the present century came under the influence of those who advocated greater specialization in training, which brought with it a great flood of courses, a flood that played havoc with organized curricular offerings. Graduate schools came to expect the completion of preprofessional training by the time the student was ready to enter graduate school, a fact which further glutted college curriculums with specialized courses. As a result of these factors, and others, college education defies those who find comfort in a wellregulated pattern, but there are many who find this challenging and a stimulating adventure to have any association with it.

Several concluding observations seem to be appropriate: (1) high-school and college education in the United States is a longterm process and therefore cannot and should not be controlled by the current situation; (2) education must be more than an accumulation of facts over a period of a formal education, to be drawn upon as the occasion seems to warrant in afteryears; (3) it is dangerous and misleading to compare the American educational system with that of the Soviets on the basis of crude statistics: (4) it should be remembered that extracurricular interests play a vital part in the education of American youth, activities such as forums, contacts with foreign students, and so on.

Democracy as a form of government defies any logical pattern and presents many complex problems to its adherents. Education in a democracy partakes of all of the virtues and all the vices of democracy, but its most important virtue is that it educates the free mind.

Sputnik and Inglis' Four Fallacies

By J. R. SHANNON DEL MAR, CALIFORNIA

Some Half-dozen so-called leaders in Education were invited by the *Peabody Journal of Education* to write on "What Lies Ahead in Education." The contributions constituted the feature in the July, 1943, issue. All but one of the invitees saw through rose-colored spectacles. To them, everything was lovely and the goose hung high. The lone dissenter saw through dark glasses, and entitled his contribution, "A New Middle Ages in Education." Earlier that same year the same maverick had an article in *School and Society* entitled, "A

Protest Against War Hysteria in High Schools," and one in School Activities on "Educational Ideals in Wartime."

Perhaps the explanation of the dissenter's point of view lay in the fact that at the time he wrote he was an officer in the Army Air Corps, while the other writers were farther removed from the smoke which might becloud their spectacles. He was closer to the machinations of the armed forces and in better position to know their points of view and their influence on education.

Whatever the explanation, time has proved the maverick to be right. During the intervening years the Progressive Education Association has folded up. Rudolph Flesch, Arthur Bestor, Robert Maynard Hutchins, Senator Ralph Flanders, et al., have flooded the press and franking privilege with their diatribe. Public education has been put on the defensive. And then came Sputnik.

Nothing in the past fifty years has so set Americans agog as the news of Sputnik. Agog and groggy! News commentators, politicians, and educators are all astir, but uncertain, Confusion, bewilderment, and babble mark the months since the "illiterate Russians" caught us with our coefficients down. Ill-advised and irresponsible assertions on how it came about, and what to do about it, are rampant. Senator Butler proposes our shooting down all man-made satellites-as if we could-and antivivisectionists weep over the sacrificial dog. But, although confusion and disagreement are great, practically all are united in an attack on John Dewey, William H. Kilpatrick, and modern educational philosophy. The child-centered school must be replaced by educational regimentation, with heavy prescriptions of those "disciplinary subjects" by means of which the Russians were enabled to surpass us in the production of engineers and research scientists-they say.

The Sputnik-scared alarmists seem, in general, to be talking on both sides of the old controversy in education: direct values v. indirect, or disciplinary, values. But in the specific problem of alleged shortages of technicians and scientists, the implications are clearly in the direct-values category, that point of view which for forty years has had the preponderance of support. In this point of view, however, the educational cave men are thinking only in superficialities. They seem not to be taking into account the underlying philosophy of their exasperated expositions—and this thing is, after all, purely a matter of philosophy.

Speaking narrowly from an educationist's point of view, the Neanderthalers need once more to have pointed out to them the famous four fallacies in popular thinking identified by Alexander Inglis® forty years ago, also in a wartime. Direct values are ones which accrue directly to a person or a society from knowledge of a subject—or knowledge of a discipline, as Bestor likes to call it. The fallacies are failures on the part of loose thinkers to distinguish between direct values which accrue to different groups of people or are derived from different kinds or portions of subjects.

1. Failure to distinguish between direct values which accrue to specialists and those which accrue to nonspecialists. Although society may benefit immensely from the creative work of specialists, each individual in society does not need to be a specialist to do so. The high school is not the place for training specialists. Its function is limited to directing experiences in the broad, generalized fields of culture.

2. Failure to distinguish between direct values which accrue to producers and those which accrue to consumers. This fallacy is a corollary of the first. A producer is a specialist. A specialist is not necessarily a producer, however. It is not the aim of secondary education to make producers of its pupils so much as it is to make consumers of them. The specially endowed and interested pupils in any high school who wish to concentrate on mathematics and science, with ambitions toward technology or research as careers, should be encouraged to do so, of course-and there are enough of them under normal conditions to supply the demand. But why force these specialties on all? TV and radio quiz programs alone unearth enough young geniuses to replace our Steinmetzes and Einsteins.

3. Failure to distinguish between direct values which are certain to function and

Alexander Inglis, Principles of Secondary Education (Boston: Houghton Mifflin Co., 1918), pp. 388-94.

those which are not certain to. One of the best cartoons by the late Clare A. Briggs, under the heading, "The Days of Real Sport," showed a boy sitting at a table in a country dining room and boning over a geography by the light of a coal-oil lamp. He was saying, "Aw, I don't see any use in tryin' to learn this stuff," and his father, standing near by and dumping some coal into the heating stove, was replying, "Well, it might come in handy some day, Jamiey' niver kin tell." All that was wrong with the picture is that it should have been published in the Briggs series entitled, "When a Feller Needs a Friend." Did anybody ever need a friend any more than when studying something for no better reason than that it might come in handy some day?

4. Failure to distinguish between direct values which accrue from the study of a whole field of subject matter and those which accrue from selected parts of the same. Why swallow the whole haystack in order to be sure to find the proverbial needle? Education must learn to separate the wheat from the chaff.

More important than the implications narrowly conceived from an educationist's point of view are implications with broader applications.

1. Demands for greatly increased requirements in mathematics, science, and foreign languages obviously assume the continuation and intensification of the cold war. Their makers see only the symptoms of international tensions, with no thought of their cause or concern for their cure.

2. America's inability to maintain a stable economy in peacetime underlies our postwar boondoggling. Who can deny that our armaments race is largely a substitute for W.P.A.? Even General Douglas MacArthur, not famous for his radicalism, openly declared as much before the Sperry Rand stockholders. With the cold-war and armaments tensions removed, the demand for technicians and scientists will not be more

than modern education can supply under a child-centered philosophy.

3. Natural science already is centuries ahead of social science, as James Harvey Robinson pointed out long ago. The cure does not lie in upping science and mathematics requirements in high school at the expense of social studies.

4. The fate of the J. Robert Oppenheimers at the hands of egghead hunters has taken its toll of technicians and research scientists. McCarthy is dead, but McCarthyism is not. When brain trusters cease to be objects of newspaper ridicule, and scholarship is no longer a political dirty word, our scarcity of engineers and scientists will be largely solved.

5. Even orthodox religion will have to revise its objectives and tactics. In two different towns in southern Indiana in the writer's own teaching experience, he was denounced publicly by name from orthodox pulpits because of his belief in evolution. What adult as much as fifty years old cannot remember the Scopes case? A fine way to recruit scientists! And the attitude did not die in America with the great depression or the second World War.

6. Just how is Henny Penny in her flight from the falling heavens going to achieve her ends of nationwide prescription of heavy doses of mathematics, science, and foreign languages? Obviously, it can be done only by federal dictation, a means contrary to our Constitution and our traditions.

"If you can't lick them, join them," is the unrecognized philosophy underlying the thinking of the Sputnik-scared educational advisers. Only in a totalitarian society could their educational objectives be achieved, and only in an extension and intensification of the cold war could their objectives be needed.

If the philosophy of the child-centered elementary and high school is junked, we already will have lost the cold war and the only legitimate excuse for a hot war—the preservation of democracy.

Jricks of the Irade



Edited by TED GORDON

NOON-HOUR SCIENTISTS: A teacher is made available in the science laboratory during the noon hour to encourage and accommodate a group of young scientists who spend their time analyzing and reproducing commercial products, developing films, building radios, studying animals in the cages, swapping ideas and collectors' items, checking math formulas with volumetric measurement, playing chess, competing with each other on the slide rule (slip stick), and in many cases continuing on a project started in class or merely arguing the validity of some proposed theory, invention, or project such as space travel or a new aircraft design. Esprit de corps in this group is as high as that found among members of the winning basketball team. They pack their slide rules around in open display and enjoy being referred to as rock hounds, wood pushers, hams, and so on, depending on their particular specialty.-HARRY F. SILBER-MAN, "Ideas for Science Teaching," in Selected Science Teaching Ideas of 1952, National Science Teachers Association of the NEA.

PHYSICAL MAPS: A new material called "powdered asbestos" may be mixed with water to make a thick paste. This paste is a very good material for constructing relief maps in classrooms. It may be painted with show-card paint.—James L. Wattenberger, University of Florida, Gainesville.

LIBRARY AID TO MEMORY: Students forget names and authors of books they have read. They forget character names. The study-hall librarian can help by having a file of 3 × 5 cards on which students may record these details and whatever else they may want to remember. Encouraging students to keep track of informational books

and things of value is good. At junior-high level, helping them organize their knowledge is a real contribution to their development.—Miss Adaline Hull, Clinton, Illinois.

"TYPE" YOUR WAY TO BETTER SPELLING: As an incentive for improving spelling and making it more interesting, use typewriters and charts of typewriter keyboards. As the oral drill is given, have students pretend to be typing out the words as they spell. Introduce this by having a student from the commercial department explain the correct fingering and position used by a typist. Have this student give instruction, using a typing chart borrowed from the commercial department. Students make copies of this chart for their own use or it may be duplicated and given to them. They fasten their charts on the covers of their notebooks. During each spelling drill period, use these charts as a typewriter. After students become familiar with these procedures introduce, if possible, one or two typewriters. Allow each pupil to have his turn using a machine. Army surplus or discarded machines may be used. Spelling, as a result, improves greatly and become less of a daily chore.-PHOEBE B. RYMPH, F. D. Roosevelt High School, Hyde Park, New York.

NOT MOCKING CONGRESS: In studying the procedures of Congress or the state legislature, the class is divided into two groups—the senate and the house of representatives. The pupils obtain necessary information, organize their groups, and carry out the passing of a mock bill. They consider this fun, and certainly it teaches.—Teaching Hints (Chicago: F. E. Compton and Company).

Practice in the Use of LOGICAL REASONING

DONALD A. WILLIAMSON

As TEACHERS we all know that a student will do his best job when he is working on a subject in which he is interested. For this reason, one assignment in plane geometry that always produces excellent results is a supplementary lesson based on practical uses of the indirect method of reasoning. I ask each member of the class to list the organization, activity, subject, or hobby that is most interesting to him. Next, he must find out if the indirect method of reasoning has been used or can be used in this particular area. By the following day everyone has at least one good example of indirect reasoning that will apply to his selection. The members of one of my classes last year had ideas for this type of reasoning in football, basketball, ice hockey, chess, bridge, chemistry, physics, astronomy, philosophy, engineering, medicine, law, military science, cryptography, banking, debating, dry cleaning, inventing, mechanics, sales, theory of chance, theory of probability, caring for babies, and nicknames.

EDITOR'S NOTE

Do students earning highest marks in mathematics excel in ability to reason logically? Not necessarily so, according to the author. Colleges may require students to offer geometry for entrance, but this is no guarantee that the students can reason logically. In fact, some practice in reasoning outside the field of mathematics helps to develop the power of logical reasoning in mathematics. This is the thesis of the writer, who is teacher of mathematics at Bethesda-Chevy Chase Senior High School, Chevy Chase, Maryland.

Each idea can be developed to show how the indirect method of reasoning applies to the example that was selected. If the idea and reasoning seem to have merit, I encourage the student to design an illustrated poster that will demonstrate his idea and reasoning. One of the varsity backfield players showed the class the reasoning that was used to develop the screen pass play in football.

THE SCREEN PASS-FOOTBALL

| Statements | Reasons |
|---|-------------------|
| (1) Suppose five opponents are tricked in to chasing the passe | good faking |
| (2) Then six opponent will remain to sto the ball carrier | ts (2) 11 — 5 = 6 |
| (3) Ten teammates wi | 407 |

against six defenders

sive team should

(4) Therefore, the offen-

gain ground

bers of defensive The members of the school debating club worked out a humorous chart showing how

(4) 10 members of offen-

sive team > 6 mem-

make use of the indirect method of reasoning in presenting a debate. Resolved, THAT CATS SHOULD HAVE BATHS

AFFIRMATIVE

the affirmative and negative teams could

| Statements | Reasons |
|---------------------------------------|----------------------------------|
| (1) Suppose cats do not have baths | (1) One possibility |
| (2) Then they will be dirty | (a) Natural phenome- |
| (3) Dirty cats will have fleas | (3) Fleas live where it is dirty |
| (4) Fleas bite | (4) Fleas enjoy eating |

pets (7) Therefore

should

baths

not

| April 1958 P | RACTICE IN THE USE | OF LOGICAL KEASONII | NG 479 |
|--|---|--|--|
| Statements | Reasons | Statements | Reasons |
| (5) Flea bites will itch (6) Itching cats are dangerous pets | (5) Irritations itch(6) Dangerous contradictions | (5) Hannibal secured advantage of posi- tion | (5) The Romans ruled out the wrong possi- bility |
| (7) Therefore, all cats should have baths | (7) Only other possi- bility | (6) Therefore, Hannibal won the battle | (6) The advantage of surprise and position |
| NEG | ATIVE | A few of the illust | rations turned out to |
| (1) Suppose cats do have baths | (1) Undesirable possi- bility | | ch as Kepler's Law of d the method of solv- |
| (2) Then their fur will get wet | (2) Water wets | | he Gold Bug." How- |
| (3) Wet fur is heavy | (3) Accumulation of water molecules | worked out by a m | ember of the home- |
| (4) Cats cannot swim | (4) Hereditary oversight | | owed how a mother |
| (5) Therefore, drowning will occur | (5) Sink or swim | | t method of reasoning all a doctor for her |
| (6) Dead cats are poor | (6) Fatal contradiction | crying baby. | |

(7) Only possibility left

One of the history students explained the three possibilities that confronted Hannibal before the invasion of Italy during the Second Punic War: (1) He could sail to Italy from Spain. (2) He could advance by way of Africa. (3) He could cross the Alps. This is a splendid example of the danger of overlooking or dismissing one of several possibilities.

cats

have

| BATTLE OF | THE I ICINUS |
|--|--|
| Statements | Reasons |
| (1) Romans decided Hannibal could not cross Alps | (1) Impossible for ele- phants to cross the Alps |
| (2) Roman consul Scipio led Romans to Spain by sea | (2) To guard against possibility number 1 |
| (3) Other troops de- ployed in case Han- nibal advanced from | (3) To guard against possibility number 2 |
| Spain (4) However, Hannibal crossed Alps | (4) He did what the Romans believed im- |

possible

ler's Law of hod of solv-Bug." Howposters was the homew a mother of reasoning tor for her THE BABY BEGINS TO CRY

Possible causes are: (1) a pin; (2) wet diaper; (3) hunger; (4) gas pains; or (5) real illness.

| Statements | Reasons |
|---|-------------------------------|
| (1) Suppose a pin is | (1) Mother can check for |
| sticking him | pin |
| (2) Suppose he has a wet | (2) Mother can check |
| diaper | for moisture |
| (3) Suppose he is hun- | (3) Mother can give him |
| gry | a bottle |
| (4) Suppose he has gas | (4) Mother can burp |
| pains | him |
| (5) If none of the fore- going reasons has caused the crying, he is really ill | (5) Mother must call a doctor |

Every student has an opportunity to do an outstanding job on this assignment. In fact, the class members who usually earn the highest grades are often surpassed by their classmates. Since colleges require geometry because of the training in logical thinking, some time should be given to practice in reasoning outside the field of mathematics. When mathematics courses are interesting and useful, more students will elect advanced courses in this field.

Evaluating the Curriculum

Helpful Information Obtained Through Follow-up Study of Recent Graduates

By ALBERT H. KRUEGER and GREGORY LANGAN

THE PRESENT STUDY was designed to uncover some facts and figures on recent graduates of one northern Illinois four-year high school. The immediate purpose of the study was to examine current curricular and extracurricular practices in this high school in light of the post-high-school activities of all the members of a recent graduating class. Selected for follow-up study were the 155 members of the June, 1955, class. The study was continued until the post-high-school activities of every member of that class had been determined.

The follow-up procedures used, the findings obtained, and some curricular implications of these findings are presented below.

EDITOR'S NOTE

This study was designed to show how a careful follow-up of high-school graduates can be used in improving the secondary-school curriculum. The care with which the study was made suggests that the findings are significant. With the rapid changes that have become commonplace in modern society, it makes sense that secondary schools continue to make a systematic followup of graduates for continuous curriculum evaluation. The alternative is for the curriculum to become outdated or less valuable to the graduates. The authors are Albert H. Krueger, associate professor of psychology, St. Cloud (Minnesota) State College, and Gregory Langan, clinical psychologist, State School for Mentally Retarded, Dixon, Illinois.

Follow-Up Procedures Used

A follow-up study of the northern Illinois high-school graduates in the June, 1955, graduating class was begun on September 10, 1955. This particular class contained 155 graduates, seventy-nine of whom were males and seventy-six females. The study was continued until replies had been received from every graduate of the class.

In order to elicit replies from every member of this group, four separate mailings plus personal interviews were necessary. Below is the message used in the initial mailing:

DEAR 1955 HIGH SCHOOL GRADUATE:

If at any time you need help, come in to see us. We will give you all the assistance we can.

Very truly yours,

GUIDANCE DIRECTOR

The reply card contained the following questions to be answered briefly by the graduate:

- 1. If you are not working full time, what are you doing?
- 2. If working, where do you work? Name of company?
- 3. What do you actually do on the job?
- 4. If working or not, do you like what you are doing?
- 5. What would you like to be doing a year from now?

- 6. If attending school, what is your vocational goal?
- 7. Do you feel that school has helped you in what you are now doing?

Of the 155 post cards that were sent on this initial mailing, sixty-six replies were received.

Following the initial mailing, a dittoed letter containing much the same message as the above was sent to the eighty-nine graduates who had not previously replied. Of the eighty-nine letters mailed, thirty-eight replies were received. Thus, a total of 104 of the 155 graduates, or 67 per cent of the class, had replied.

On the third mailing, a mimeographed letter was used. The purpose of the study was given and it was emphasized that no name or personal reference would be used in the survey. Of the fifty-one mimeographed letters that were mailed, twenty responses were received. Thus, only thirty-one of the 155 graduates had not yet replied.

The fourth letter, entirely handwritten, was mailed to the remaining thirty-one non-responders. This letter expressed a personal interest in the graduate. High lights of his particular school experiences were mentioned. Of these thirty-one personalized letters that were mailed, eleven replies were received. The study had at this point succeeded in obtaining 87 per cent replies. Only twenty members of the class had not answered.

In order to determine the activities of the remaining twenty nonresponders, the personal interview technique was employed. Seventeen of the remaining twenty were contacted personally and the questionnaire was in each instance satisfactorily completed. This left only three of the 155 graduates unaccounted for. Since the remaining three nonresponders were no longer in town, it was decided to obtain from their parents the information needed to complete the questionnaire. Consequently, information concerning the final

three graduates was obtained and the 100 per cent follow-up study was completed on January 12, 1956.

It would have been possible to conclude this follow-up study after the fourth mailing since, at that time, 87 per cent of the replies had been received, a far larger percentage than that used to conclude most other follow-up studies. Several significant studies have shown, however, that it is risky to draw conclusions from a follow-up study based on less than 100 per cent of the group. It has been found that the information on later responses is quite different from the data on initial responses and that there is a strong possibility of distorted conclusions if less than 100 per cent of replies are analyzed. Consequently, this study was continued until the desired information on every graduate had been determined.

The Findings

Many facts of interest and of value to educators were uncovered as a result of this study. Only those findings, however, which seem to have curricular implications for this particular high school will be presented in this report.

Probably the follow-up finding of major interest to most high-school educators is the determination of post-high-school activities of the graduates. The practical worth of high-school curricular offerings can probably be evaluated best in terms of their usefulness to the graduate.

The present follow-up study uncovered the rather startling fact that almost half of the graduates were attending schools of higher learning. An analysis of this finding indicated that approximately 78 per cent were attending colleges and universities, 15 per cent were in nurses training, 4 per cent were in business colleges, and 1 per cent were in technical schools. These findings are of particular significance in view of the fact that nationally the percentage of high-school graduates who seek advanced

education beyond high school ranges between 20 and 25 per cent. Many rather pessimistic articles have appeared recently in educational journals bemoaning the purported fact that the better high-school graduates are not going on to college. The findings of this survey were quite optimistic in this respect. It was found, for example, that 69 per cent of those graduates who ranked in the upper third of the class were continuing their educations, whereas 44 per cent of those who ranked in the middle third were seeking advanced education, and only 23 per cent of those who ranked in the lower third of the class had gone on to school. This finding seems to speak well for the over-all educational guidance program of the school.

Table I (opposite) indicates also that 43 per cent of the graduates had taken full-time jobs. An analysis of this finding revealed that the majority of these graduates were employed locally and that officework constituted the greatest single source of employment.

When class rank is considered in relation to post-high-school employment activities, a trend opposite to the one given above for post-high-school educational activities was found. Only 28 per cent of those graduates ranking in the upper third of the class had taken jobs, whereas 41 per cent of those in the middle third were employed, and 60 per cent of the graduates in the lower third were working. It was interesting also that none of the graduates in the upper third of the class was in the armed services.

The armed services, unemployment, and farming were the post-high-school activities of the remaining graduates, as indicated in Table 1. The finding that only 1 per cent of the graduates was engaged in farming was surprising since this area of Illinois, though not essentially a farming community, does draw many students from the rural areas which surround the town. Because of this latter fact, the high school offers a four-year course in agriculture. In

TABLE I
Post-High-School Activity by Percentages
of the 1955 Graduating Class

| Post-High-School Activity | Per Cent of Graduates |
|--|--|
| Advanced Education Working Armed Services Unemployed Farming | 45.16 43.23 6.45 3.87 1.29 |
| Total | 100.00 |

view of the finding of this study, the question arises as to whether agriculture should remain a strong curricular offering in this particular high school.

In a study of this nature it is valuable to know not only the per cent of graduates who obtain employment after graduation but it is helpful also to determine the nature of their work. The job classification scheme found in the Dictionary of Occupational Titles was used, and the following per cent of graduates was found to be employed in each of six occupational categories: (1) professional, technical, and managerial, 7 per cent; (2) clerical and sales, 58 per cent; (3) service, 5 per cent; (4) agriculture, marine, and forestry, 5 per cent; (5) mechanical, 7 per cent; (6) manual, 18 per cent. In view of the large per cent of graduates who enter clerical and sales work, it would seem imperative that the high school continue to offer an extensive and up-todate program in the commerical arts.

Since the post-high-school activities of boys may differ markedly from those of girls, an analysis of post-high-school activities according to sex was made. It was found in this study that of the large per cent of graduates who sought advanced education, the males constituted only a slightly larger per cent of the total than the females. Of the 44-74 per cent of female graduates seeking advanced education, approximately 26 per cent of this figure were attending colleges and universities and 15 per cent were in nurses' training. This latter finding is significant in view of the fact that outside

TABLE II
POST-HIGH-SCHOOL ACTIVITIES
OF MALES AND FEMALES

| Post-High-School Activity | Per Cent of Graduates | |
|---|---------------------------------|--------------------------------|
| | Males | Females |
| Advanced Education Working Armed Services Unemployed | 45.57 36.71 12.66 2.53 | 44.74 50.00 0.00 5.26 |
| Farming Total | 2.53 | 100.00 |

of the sciences the school has no curricular or extracurricular offerings for this large per cent of girls who enter nurses' training.

It is interesting to note in Table II (above) that 14 per cent more females than males were employed at the time of the study. The obvious reason for this difference lies in the fact that approximately 12 per cent of the males were in the armed services. One might logically ask whether the school should assume any responsibility curriculumwise to prepare these boys for the armed services.

It was found also that the 5 per cent unemployed females from this graduating class had married shortly after graduation and were engaged solely with the duties of housewife. To prepare these girls for these duties, the school offers a comprehensive program in home economics.

Curricular Implications of the Findings

From an examination of the findings of a study such as the present one, the entire high-school staff or the curriculum committe can doubtless make many constructive recommendations in terms of the existing curriculum. By way of illustration, several curricular recommendations are suggested by the authors of this study in light of the previously discussed findings:

1. Since this study revealed that 45 per cent of the high school graduates were continuing their education, and 43 per cent had taken jobs, it might be concluded that neither vocational training nor college pre-

paratory training should be neglected at this high school.

2. The high percentage of graduates furthering their education suggests that it might be advisable to have a freshman college-level course at this high school, designed specifically for those students who plan to attend college. The quantity and the quality of work required of the student in this course would be far more extensive than that required in any other high-school course. This would acquaint the student with the caliber of work demanded in college.

3. Since 58 per cent of those graduates entering the world of work engage in sales and clerical employment, a modern and well-rounded commercial department is probably advisable.

4. Careful consideration should be given to the findings that 15 per cent of the female graduates who continue their education enter nurses' training, and that almost 13 per cent of all the male graduates enter the armed services. Perhaps the needs of both of these groups can be met best by means of cocurricular and/or extracurricular organizations adapted to the special needs of these groups.

5. A group guidance course in occupations and employment problems might be of particular value to that 43 per cent of the graduates who took jobs. The school offers no such course at present.

6. Careful consideration should be given the rather extensive agricultural course offerings of this school in view of the fact that only 1 per cent of the graduates entered this occupation. Probably these courses can, at least, be redesigned to insure maximum general educational benefit to the agricultural majors.

Conclusion

It is recommended that, in view of the rapid changes of modern society, American high schools adopt the practice of continuous and systematic follow-up of graduates and that the information obtained be used for continuous curriculum evaluation. Unless this is done, high-school curricular practices may become quickly outmoded and without purpose or value to the graduate.

Are Interschool Athletics Getting Out of Hand?

By MARIA McLEOD Jamesburg, New Jersey

I am a novice at teaching but I have been appalled at some of the things that are going on in interschool sports in the United States. What are sports good for? (1) to build up a strong and healthy body with some stamina; (2) to develop a sportsmanlike attitude, not only in sports but in all other aspects of life.

What happens in interschool athletics? First of all it appears to me that the health angle is mostly disregarded. Let us not forget that growing up takes a tremendous amount of energy and that adolescents hence need a lot of sleep and rest. When, for instance, growing boys play three strenuous basketball games a week, come home late, do not therefore get enough sleep to recuperate, this cannot be good for their health.

With a schedule like this, sports are doing harm, breaking down body reserves of energy necessary for growing up. Interschool athletics should be fun and not be copied after professional sports.

Moreover, boys and girls are in high school to learn and to study. An interschool athletic schedule such as the foregoing keeps them from their books. The players and cheerleaders are tired in school next day, do not work to their capacity, and therefore miss out on knowledge essential to their success in later life. When students are tired, they certainly will not play a good brand of ball of any kind. A heavy inter-

school schedule impairs the ability of the players and causes nothing but ulcers to the coach.

I have also noticed with great chagrin that other physical education teachers for girls either do not know what their girls are doing or otherwise do not care. I hope they know better than to let their squads use taunting yells such as, "Our team is red hot. Your team is all shot." This is one of the milder ones. It is about as bad sportsmanship as one can find anywhere.

Often, students bring a great deal of pressure to bear on coaches and girls' physical education teachers. The students want things run their way. If we as teachers let them get away with that the result will be undisciplined human beings, always wanting their own way and not wishing to bow to superior knowledge. This is bad sportsmanship bred by us under pressure of highschool students because a lot of us have not enough backbone to withstand it.

Suggestions for improvement: (1) Limit the interschool athletic schedule to three games in two weeks, for instance. This saves strength, endurance, and health; it makes for better ball; it at least gives the students time enough to study. (2) Develop sportsmanship by keeping tabs on cheers and the behavior of onlooking students; by explaining and discussing to cheerleaders and in home-room periods why certain behavior is bad sportsmanship.

> Events & Opinion

Our readers may avail themselves of the complete plan as well as other materials affecting education by writing to the National

SURPLUSES AND SHORTAGES: It is most startling these days to read a statement which indicates that this country has too many scientists, rather than too few. Joseph Amann, President of the Engineers and Scientists of America, said thousands of engineers and scientists had recently lost their jobs in the aircraft industry. As a result, he said, his union is "disturbed and alarmed over the undue enthusiasm for inaugurating an all-out crash program to train large numbers of additional engineers and scientists." This news item, reported in a United Press dispatch from Washington, D.C., concluded that these released engineers and scientists eventually found employment in other parts of the country with lower pay in many instances.

FINANCING EDUCATION—A NEW APPROACH: In an address following his inauguration as chairman of the National Citzens Council for Better Schools, Robert Heller proposed a new plan to provide funds for education. Under this proposal the taxpayer would be permitted to subtract any increase in state and local school taxes in full from his federal income-tax bill.

The plan, according to Heller, would primarily benefit those in the lower income brackets and would be conducive to federal action without federal interference with local prerogatives. Further, the author advances the following key merits of his proposition: (1) It provides for an expression of federal concern on the problem of education. (2) It preserves the traditional right of local decision. (3) It provides a means for greater financial assistance to less wealthy areas. (4) It requires no federal administrative expense. (5) It offers a means for taking full advantage of increasing individual willingness to be taxed for education.

complete plan as well as other materials atfecting education by writing to the National Citizens Council for Better Schools at 9 East 40th Street, New York City.

RECENTLY THEY SAID: Victor Gilinsky, in a letter to the editor of the New

RECENTLY THEY SAID: Victor Gilinsky, in a letter to the editor of the New York Times, said: "The chief fault of the high schools in the United States is not that scientific subjects are neglected but that the curriculum contains little of substance. Subjects are seldom taught in a proper and serious manner. The most distressing consequence of a diluted high school program is that students acquire a disbelief in the reality of academic accomplishment and a contempt for learning. The typical student remains mentally lax for so long that he becomes permanently reluctant to exert himself intellectually."

Congressman McGovern of South Dakota, commenting on the attitudes of the people toward education, said: "As long as we pay Elvis Presley as much in one year as the combined salaries of the faculty members at a university, we're not going to solve the problems of American education." Further, he offered this opinion: "I think we have reached the stage now in our contest with the Soviet Union where the most urgent need is people who are specialists in human relations generally. What good is technology if you don't have human understanding?"

After concluding a meeting at Georgetown University, the Presidents of twenty-eight Jesuit colleges and universities declared that education's basic response to current pressures "lies not in a program of better ballistics... but in one that produces better men.... Any panic-inspired aping of an alien system could quickly destroy the very values we undertake to preserve."

Secretary of Labor James P. Mitchell, in expressing his concern that the schools do not teach enough of the basic subjects, suggested:

". . . Maybe we can accept the idea that school is meant to be an intellectual exercise, not a social experience. Maybe we can accept the idea that our children go to school primarily to learn rather than to 'adjust.' Maybe we can restore high standards to our schools even if they are too high for some of our students. Maybe we can profess again that intellectual vigor comes out of intellectual competition and that man achieves only to the extent that he is able to explore and discipline his own individual mind."

GOBBLEDYGOOKESE: Those advocating precise usage of the English language were quite critical of the word "finalized" as used by President Eisenhower in a recent message to Congress. This criticism inspired Russell Baker, a Washington staff writer for the New York *Times*, to prepare a lexicon of corruptive words and terms with accompanying translations or definitions in pure English.

It is a most amusing collection, a sampling of which follows:

FINALIZE, v., (bureaucratese), signifying formal adoption of a decision, policy, or program, with tacit agreement that it be given a quiet burial, or "implemented."

IMPLEMENT, v. (bureaucratese), what you do to carry out a decision, policy, or program when you are doing nothing.

TEAM, n., a mutual protection society formed to guarantee that no one person can be held to blame for a botched committee job that one man could have performed satisfactorily.

INDIVIDUALIST, n., what you are.

Conformist, n., anyone who does not take exception to the same things you do.

JUVENILE DELINQUENT, n., (1) youth headed for an Elvis Presley concert with a \$500 bail bond; (2) your neighbor's child.

Well-adjusted, adj., (psychiatric), in debt, heavily mortgaged on home with low house-power, passion for three martinis before lunch, occasional rendezvous with neighbor's spouse, undisturbed by fallout, eyeing snappy new television set with tailfins, convinced mankind has made progress since Age of Pericles.

UNESCO CLEARED OF CHARGES: Congress has said a kind word for UNESCO, according to an item contained in the *Phi Delta Kappan* for October. After listening to charges by the American Legion that UNESCO harbors Communists, promotes one-worldism, and tries to use the American schools for inculcating world-government notions, a House Foreign Affairs subcommittee stated it was impressed by:

(1) UNESCO's record in helping more than thirty nations build or strengthen free compulsory school systems. (2) UNESCO's record in stimulating a free flow of ideas throughout the world. (3) UNESCO's help in presenting "the American story" to the rest of the world. None of the Legion charges is true, the subcommittee concluded.

ELECTRONIC HANDOUTS: students descended upon an electronic plant to obtain free parts for many devices short of an earth satellite. Responding to an invitation from Westlab Electronics, Inc., of Yonkers, New York, the aspiring scientists helped themselves to used resistors, condensers, transistors, tubes, and other electronic hardware. Most such parts, accumulated in the trade-in of old equipment for new, were formerly junked. This novel approach toward building an interest in electronic engineering as a career proved so successful that the company is accepting donations of surplus parts from other concerns in the field for future "open house" visitations.

JOSEPH GREEN

Diagnostic Instruction in Remedial Reading Classes

By ALLAN M. PITKANEN

REMEDIAL TEACHING has too long been relegated to the lesser teaching arts, to be done as a "part-time" or "extra" assignment, and considered, at best, a tedious chore. In spite of the difficulties a specialized handling of the nonreading pupils presents and the failures of past attempts to show improvement or even tangible indications of success, remedial teaching is coming into its own. Understanding, dedicated teachers consider it far more than a special technique of instruction. It is instruction based on diagnosis—a continuous diagnosis inseparable from the instruction.

Grievous results came from thinking that nonreaders could be dumped into classes in some dark basement room without damage to their already hampered educational process. To succeed in this double process of diagnostic instruction, remedial groups must be small enough to make it possible for the needs and progress of each pupil to be given individual attention. This clinical approach is not workable in the crowded regular-sized classroom.

EDITOR'S NOTE

This is all about remedial reading and the six ways for teaching remedial reading proposed by the author. Basic to remedial work in reading is the concept that nothing will help a person to improve his reading unless he is emotionally ready to read. Hope for success in remedial reading classes is that motivation for reading occurs in an optimistic atmosphere. The author, general co-ordinator of Jacob A. Riis High School, Los Angeles, deals here with what he calls the nonreader.

Here are various methods that can characterize the process of remedial teaching in special classes organized for that purpose.

Method A, the "reading club," schedules small groups having similar reading difficulties into a "select circle" whose primary purpose is to meet together to analyze their problems, individually and in small groups. The teacher's main purpose is to take tension from the reading experience. The emotional and environmental factors would receive recognition; a build-up of confidence and success would be a prime aim. Pupilsall with fairly identical problems-would be encouraged to help each other. The atmosphere should be casual and pleasant enough to encourage pupils to feel a sense of relaxation, though no nonsense or infractions of rules would be tolerated, and effort should be made to meet the standards set up for the group.

A positive, forceful personality, that works at an even keel, with sympathetic understanding, would be a teacher requirement. If there could be a lack of threat with the impression of power available when needed, even the most difficult and disturbed pupils would more easily find relaxation and an incentive to learn. Even a certain "bribery" would entice some discouraged pupils to take up their tasks. If a reward could be given before work started, at the beginning of class, it would help diminish antagonism. This act would demonstrate good will and affection regardless of performance. Thus, a better bond between pupils and teacher could be estab-

Method B would be to make reading "fun." The teacher presents the materials

with an enthusiasm given to viewing rare jewels. His spirited concern would create an expectancy of interesting things to come. Presenting books with illustrations that arouse curiosity, introducing a poem as an unusual, exciting thought can vitalize a lagging interest. The teacher is required to have a consuming desire to "sell" the reading item to unlikely customers. Games, "word wheels," phonics, the clarification of unusual, complicated words with embellished interpretations of meanings—adjusting all these fascinating bits to the pupil's attention span—would provoke interest and effort.

There must exist a friendly bond of affection between teacher and group—a recognition of a pupil's need for affection, for the experience of success, for confidence, and for work at his own level. The more disturbed a pupil is, the more he cherishes success.

Beneath all the "fun" would be a teacher's subdued attention to the diagnostic aspects of remedial work and to the individual needs of pupils.

Method C is a carefully planned work procedure with a large assortment of commercially prepared reading games. After explaining the games and after pupils know how to play them, the teacher would leave those playing the games to work individually with other pupils. These games serve as learning exercises which pupils might use with minimum supervision so that more individual attention could be given than otherwise would be possible.

At the beginning of the hour each pupil does assigned work under the teacher's supervision. The second part of the hour would usually be devoted to these games or to some group activity involving reading, perhaps seeing a filmstrip together or reading captions or making up their own captions, perhaps listening to one of the pupils read a selection he had prepared. The final few minutes would be spent by most pupils playing some game together while the

teacher worked intensively with individual pupils, perhaps on work in their individual envelopes, perhaps simply in conversation with them over their problem.

Careful histories of pupils' symptoms and progress are kept-from all possible sources—to understand better what may lie behind their reading difficulty. This clinical approach demands a warm, natural friendliness.

Method D is the "progress report" type. It demands a well-planned introduction to diagnostic procedures. The first requisite is the recognition by the pupil of his problem. After a reading test, the pupil is told frankly what he shows and why and told what his future success may be. The group is kept to about fifteen—all quite similar in reading ability.

It is important to provide successful reading experiences. A system of mechanical scoring, graphs, and so on, should be set up to be constantly used in evaluating improvement in speed and comprehension. Suitable materials for free reading as well as materials for "techniques of reading" should be available. The pupils receive standardized tests at the beginning and end of the term. Once the pupil is motivated, there is no substitute for reading in the "improvement of reading."

This method is chiefly for retarded readers. Its aim is to motivate them to do better. Some pupils may resist the competition if progress reports are too public and would do better on their own time and in their own way.

The emphasis in Method E is to find, in the pupil's daily life and interests, occasion and material for reading. Road signs listed on the board—"One Way," "Detour," "Danger"—could provide one form of drill. An oral reporting on shows—TV and motion pictures—could prepare beginning reading materials for the class. After a pupil report, the teacher would write up the account and have it typed to use as reading material for the next period. In utilizing

popular songs, the class would dictate the words to the teacher, who would write them on the board. The class would read them back, or the teacher would ask them to say individual words, mixed or in their continuity. The class would then copy the song on paper and use the copies for memorization drill. Various words in the song would be used in a spelling test. Recognizing advertising slogans when written on the board could provide another exercise. Cutting them out of magazines and newspapers and presenting them written or printed in a style different from the advertisement can help add these words, as words, to the reading sight vocabulary.

Method F, the kinesthetic approach to remedial reading, is aimed at increasing word recognition. By repeatedly tracing words written in blackboard-sized script while saying them quietly to themselves, the pupils can gradually build up a sight vocabulary of words. These words, on sets of large cards, could be filed alphabetically for reference as needed by the pupils. A combination of visual and auditory channels of learning is involved in reading aloud, but such reading should be done privately by each pupil in individual conference with the teacher while the rest of the class is otherwise engaged. Similarly, pupils may help one another in pairs or in very small subgroups. No pupil with reading difficulty should be expected to display his disability before his class, although much may be gained from having him demonstrate his ability to read something he has prepared. One procedure would be to require other pupils to close their books and listen carefully so that they could answer questions posed by the one who had read aloud; or to have a pupil read to entertain his classmates with something he had himself enjoyed.

Pupils with disability in reading need opportunity for reading aloud materials which they already know. They must prove to themselves and to their classmates that

they can indeed read something. The teacher needs an opportunity, through hearing a pupil read aloud at sight, to appraise needs and progress. The remedial teacher can safely include reading aloud among the learning activities of the special reading class, provided it never becomes a public demonstration of failure and never is an unnecessary and monotonous duplication of what the other pupils can see printed right in the pages of their books before them.

Whatever method best suits the particular teaching situation, the following suggestions should be considered in any development of the nonreader in special reading classes.

Concentrate on pupils most in need. The pupil whose reading potential is farthest above his reading ability would be the one most in need of remedial help. The pupil reading poorly but who is close to his potential is not so much in need of remedial instruction as the one whose actual reading may be better but whose potential is very much higher.

Groups with nonreading pupils or with emotionally disturbed, severely retarded readers must be kept at minimum size. Pupils with less severe retardation and without serious emotional difficulties can often work well in somewhat larger groups. Highly individualized instruction is imperative. These classes should not become dumping grounds whose primary purpose is to relieve regular classes of the burden of nonreading and other problem pupils. Under such conditions an effective diagnostic and remedial program is usually not possible.

Emotionally disturbed pupils or those highly resistant to reading, or to all instruction, are badly in need of remedial instruction; however, significant improvement may be for them less probable than for other pupils. With such pupils in the class, its total capacity for improvement of reading is not so great as when more promising pupils fill the class.

Pupil segregation with others of similar degree of handicap is sound, although complete homogeneity is probably about as far from possibility in a remedial as in any other class.

Diagnosis and instruction are inseparable. Before the remedy can be devised or applied, the nature of the difficulties must be known. Thus, the first function of the remedial teacher is diagnosis. It is futile to attempt to catalogue every specific difficulty a nonreading pupil may have-many are relatively unimportant-until the pupil has developed some basic reading skill. The amount of reading ability a pupil really has, compared with his reading potential, is of first concern. The second would be his sight vocabulary.

Determining causes of reading difficulty may be impossible or easy-through observation, conversation, past records, and reports. Very often these factors are beyond the power of the school to correct. Often teachers must accept the existence of such deterrent factors (blocks) and help the child to function as well as possible in spite of them. Sometimes awareness of their existence will suggest means of circumventing them. At times it may appear best for the teacher to concentrate on the matter of helping the pupil to find a variety of satisfactions, some experience of success, personal acceptance, and a happy place for himself in at least one part of his school life, regardless of how much may be accomplished in reading.

A tentative diagnosis of the reasons behind a pupil's disability is usually the best a teacher can do. It will always be subject to revision as additional facts become apparent. It is important, however, that diagnosis continue. Instruction does not await the outcome of diagnosis; it is actually in-

separable from it.

To improve reading ability, there must be practice in reading. Hence there must be a wide variety, a vast quantity, of reading materials, suitable to the ability of the

pupils. My Weekly Reader, at its various levels of difficulty, could be collected in folders for browsing. Well-illustrated books of interesting information and pictures of animals, sports, automobiles, how-to-do things, magic, nature-all are important. The Golden Dictionary and The Golden Encyclopedia are good for collecting facts. Stories composed by pupils or teacher may be typewritten and illustrated either by pupil-made drawings or by illustrations cut from magazines. Pictures may well be used in vocabulary-building posters and in illustrating the meanings of various words.

A typewriter can be indispensable in a remedial classroom, both as a motivating device and for its practical use in preparing homemade reading materials. Pupils get a "kick" copying stories on the typewriter that they themselves have dictated to the teacher. A tape recorder can provide motivation for reading aloud. It can record a discussion, or interview material for the teacher to review subsequently as a part of a diagnostic study of a pupil-or it may be just an entertaining gadget, depending on how it is used. Reading games can be used as serious instructional devices. Pupils prefer to use them strictly for the game element involved, but under teacher guidance they can be made to serve both purposes well.

An array of teaching materials on display in the classroom can do much to set the stage for constructive work by the pupils. It can lend an aura of both interest and industry to the atmosphere of the room. This fact, plus the necessity for instant availability of a wide variety of materials, makes it almost essential that the remedial classroom have a permanent place in the school building.

Practice and drill materials are supplementary and they should be selected for suitability in terms of grade level and problems treated. Here, if anywhere, it may be possible to adapt the use of primary-grade practice materials. Older pupils can usually see the need for such practice and in the privacy of the remedial classroom may engage in it without embarrassment. Formal drill and practice should best be assigned when pupils see how it will help them meet some specific problem which blocks improvement for them at a given time.

Word recognition may be practiced through use of cards, games, fill-in work-books, kinesthetic practice at tracing words. Phonetic analysis of words is of doubtful value for slow-learning nonreading pupils although it may be of some help to those with a better grasp of abstractions, particularly if they have never tried it before.

Drill assignments given to an entire remedial group at one time are not likely to be of much value to pupils unless the teacher is able to contrive a situation in which all the pupils happen to feel the need for just this sort of practice at just this time, perhaps by making the need the focus of the game.

The teacher, then, has the responsibility for seeing that the learning is carried over into actual use by the pupils in situations other than the game or drill situation. However, it is better to have pupils working individually on reading tasks meaningful for them, or working on overcoming deficiencies which have been blocking their improvement.

All talk of reading skills, drill, practice, materials, is quite futile unless the pupil is emotionally ready to read. The great hope for success in remedial classes is that motivation for reading, plus effective guidance for learning, is in an atmosphere of optimism, assured success, and personal acceptance. This environment can help break the vicious circle that emotional blocks create. Factors which tend to spoil this type of atmosphere must be carefully avoided in the remedial class. The teacher must remain optimistic, confident that the pupils will find success. Opportunity for assured success must be provided repeatedly. Pupils must be accepted and liked as persons by the teacher and their classmates. Successes and progress can be expected under such conditions; not equal or universal success, but enough to give hope for more successes in the future.

A great value to be found in the organization of remedial classes is the opportunity they afford pupils to witness and to find encouragement in one another's successes and progress. Here there is no question of comparison with abler students. Here little bits of progress can be rejoiced in by all. This value can be found only in remedial groups, not in special work with a pupil carried on in a regular class, not in individual casework, valuable as this latter may be.

A Layman's Charge to Education

Teach our young people, I urge you:

To be excited by ideas, most particularly by ideas they find new or by new application of old ideas.

To be unawed by those with power, but to understand the sources and the uses of power. To be unafraid of controversy, where wiser goals

To be unafraid of controversy, where wiser goals or better methods are at issue. *

Teach them that history itself is a record of such controversy, and that even the interpretation of history may properly be as controversial as the events themselves.

That the facts of our national social and economic commitments (which both major parties cling to, at least in election years) are in fact the product of this controversy and conflict.

Teach our young people not to be content within themselves—and not to be lulled or gulled by what Carl Sandburg has called our "fat dripping prosperity."—David B. Dreiman in Educational Forum.

New Teachers Tell Their Story

By ELIZABETH K. LAWSON and EMMA REINHARDT

MUCH HAS BEEN WRITTEN about the teacher shortage, with emphasis on low salaries and long hours as the chief causes, but relatively little appears to have been published concerning the causes of dissatisfaction among new teachers. Their dissatisfactions may possibly be clues to the inclination of too many new teachers to leave the profession for other vocations.

The study summarized in this article merits thought because it is based on data secured from a selected group of teachers. In 1955-56, 1,343 experienced teachers in Illinois furnished the writers with facts and opinions about the orientation programs in their schools. This survey, conducted as a special project sponsored by the Delta Kappa Gamma chapters in the state, led to a second investigation in which new teachers were asked to indicate to what extent the orientation program in their schools helped or failed to help them adapt themselves to their new environments. Questionnaires were sent in January, 1957, to new teachers in schools where the 1955-56 survey had shown that orientation programs were in use. Replies were received from 70 of

the 115 individuals asked to participate in the study. The participating teachers were employed in Illinois school systems ranging in size from one having one teacher to one having 15,000 teachers. The average system had 579 teachers.

Recipients of the questionnaires were "new teachers" in the sense that they were engaged in their first year of teaching or that they were in a school system in which they had not been previously employed. Actually 41 per cent of the respondents had taught one to five years, 33 per cent had had no former teaching experience, and 24 per cent had taught more than five years. Of the replies received, 39 per cent came from elementary classroom teachers, 44 per cent from secondary classroom teachers, and 17 per cent from administrators and supervisors.

The items in Table 1 are those about which new teachers are likely to be concerned and about which the largest percentage of respondents in this survey stated that they received either inadequate information or no information. There were eight other items concerning which a large majority of the teachers stated that they received adequate information. These items are shown in Table 2. Scrutiny of this breakdown of the information received leads to some conclusions which, if brought to the attention of school administrators, might eventually lead to more stability in the teaching profession.

In the first place, it is obvious that usually the business aspects of employment are adequately discussed when the administrator and the prospective teacher reach the contract-signing stage. In fact, the contract may be expected to contain specific statements covering dates of employment, assignment, salary, paydays, required medi-

EDITOR'S NOTE

Much has been written on what a beginning teacher needs to know about school and community. Academically, this comes under the heading of teacher orientation. Less has been written about the feelings that beginning teachers have toward orientation programs. We welcome this article for the contribution it makes to teacher attitudes on orientation procedures. Dr. Reinhardt is head of the education department and Dr. Lawson is dean of women at Eastern Illinois University, Charleston, Illinois.

TABLE 1

| Item | Percentage of Total Replies | | |
|---|--------------------------------|-------------------------------------|-------|
| | No Infor- mation | Inade- quate Infor- mation | Total |
| Customs and taboos affect- ing teachers Range of preparation of teachers and teacher turn- | 56 | 24 | 80 |
| over | 27 | 26 | 53 |
| The school plant and equip- ment for teaching Availability and cost of liv- | 9 | 41 | 50 |
| ing accommodations | 27 | 23 | 50 |
| General philosophy, prac- tices, operating procedures In-service education require- | 14 | 32 | 46 |
| ments | 24 | 20 | 44 |
| Attitude of the community toward the school Church facilities; social, cul- | 28 | 14 | 42 |
| tural, and recreational ac- tivities Extra assignments at the | 32 | 9 | 41 |
| school or in the community Assistance given by super- visors and other special | 12 | 29 | 41 |
| personnel Requirements concerning rec- | 14 | 23 | 37 |
| ords and reports Welfare provisions, such as health services, sick leave, | 9 | 23 | 32 |
| retirement benefits | 9 | 23 | 32 |

cal examinations, and recommended or required organization affiliations. It should be noted, however, that 12 per cent indicated that they were given inadequate information about salaries.

A second look at the items about which 32 per cent or more of the teachers failed to receive adequate information reveals unfortunate omissions on the part of administrators and others who interview applicants and select teachers. Undoubtedly here lie the causes of much of the dissatisfaction among teachers finding themselves in a new school system. It seems particularly noteworthy that half of the teachers from whom replies were received were not adequately informed about the school plant and equipment, and that approximately half of them indicated that they did not know what to expect with regard to living accommodations.

TABLE 2

| Item | Per Cent Who Received Adequate Information |
|---|---|
| School calendar for the year | 94 |
| Working hours Salary | 94 88 |
| Medical examination, if required for continued employment Paydays | 88 86 |
| Assignment (nature of specific teach- ing duties, and so on) Current and anticipated enrollment Professional organizations of teachers | 80 76 76 |

A third group of facts that this study reveals is that too many (44 per cent) of the teachers queried did not know the school policy about in-service education requirements; that almost half (46 per cent) of them felt they did not know enough about the general philosophy, practices, and procedures of the school; and that over 40 per cent of them reported that they were not told enough about the religious, social, cultural, and recreational offerings of the community or the attitude of the community toward its schools.

Finally, there is the fact indicated on 80 per cent of the replies that the new teachers were not given a full understanding of the customs and taboos affecting the teachers in the various communities and cities represented in the study. One might conjecture that this omission was unintentional and that it occurred because no one thought to mention the attitude of the school patrons and the populace in general concerning such matters as church attendance, smoking, dating, or frequenting eating places where liquor is served. Perhaps it was assumed by the employing officials that professional men and women did not need to be forewarned with regard to their extracurricular activities. Illustrative of the unnecessary woe which may discourage a beginning teacher who does what she assumes is correct is the case of a graduate of one of the Illinois teachers colleges who attended the church of her preference regularly for several weeks and who grew increasingly unhappy because only the people whom she met at the church were friendly. Her landlady finally explained to her that new teachers were expected to attend each of the churches in town at least twice before settling down to regular attendance at any one church. A further indication of the importance of a frank explanation of taboos and customs is the case of a young man who enjoyed taking his wife to a restaurant at the edge of town which, although frequented by many of the town's chief citizens, was considered unfit for a school teacher's patronage because liquor was served there. It is not surprising that this promising young teacher moved at the end of the year because of the unpleasantness occasioned by his unwittingly reprehensible behavior.

It may seem that the survey summarized in this article shows merely the eternal tendency of teachers to complain and criticize, and that it reveals a naïveté and stupidity on the teachers' part because they failed to gather the facts they needed to facilitate their own orientation. Perhaps again education has a lesson to learn from industry, where newcomers are helped to acclimate themselves to their new environments. Although college seniors may be well indoctrinated with regard to job investigation and interview techniques, it still is true that not only the neophytes but also those with a few years' experience are reluctant, even shy, about asking a prospective employer a multitude of questions. They want employment; they tend to see a new job through tinted glasses which perhaps distort and becloud their vision.

If one is inclined to wonder about the dilemma of new teachers in school systems which have no orientation programs (25 per cent of the schools represented in the 1955-56 survey), one might recall the "good old days" when no school had such a program and when no one thought a new teacher should need more than chalk, a

blackboard, the textbook, and the gradebook. We have progressed rapidly in the last fifty years toward a humanization of the profession.

The questionnaire provided an opportunity for the participants in the survey to point out ways in which orientation programs might be improved. Among their suggestions were the following:

- Orientation program for new teachers who are employed after the school year has started.
 - (2) Tours around the town or city.
- (3) Opportunities to meet residents of the community who are not directly associated with the school.
- (4) Specific help on social and professional "do's and don't's."
- (5) Supplying new teachers with yearbooks and loose-leaf manuals of information on routine procedures.
- (6) Small group meetings for informal discussion.
- (7) Direct and practical help on discipline.
- (8) Reports from administrators on school board meetings.
 - (9) Information about students.

As a footnote to this report it seems not unjust to point out a weakness in the questionnaire; namely, the omission of a column where "misinformation" might have been reported. Sometimes this situation may arise through misunderstanding on the part of the prospective teacher, but there is evidence to substantiate the assertion that administrators have misrepresented the positions they hope to persuade applicants to accept. This is exemplified by the statement from one teacher: "Under the present administrative head, new teachers are given a very pleasant picture of their teaching assignments and receive quite a shock when they are confronted by the reverse situation. Within eight years six teachers have left the system because they were given false impressions of their positions."

The Alternate-Day School

By R. LYNN KALMBACH

THE DIFFICULTIES encountered in operating either a double session or a twelvemonth session on the secondary level are rather frightening to a person acquainted with the complexities of secondary-school operation. However, faced with crowded conditions and no other alternatives, the schoolman is left with no choice but to become involved in some sort of a procedure to alleviate the circumstances. This procedure must be acceptable to his community and be least damaging to the progress of pupils. The following is a proposal which might be acceptable, perhaps offer us a better learning situation, and at the same time double the capacity of a school. We shall call this the alternate-day session.

If there is merit in operating schools for more than nine months, there is merit in operating on Saturday. With a six-day week, schools could be operated on an alternateday basis. For example, a school with 1,000 capacity but with 1,600 pupils to serve could operate at below capacity with 800 pupils attending school on Monday, Wednesday, and Friday while 800 more could attend Tuesday, Thursday, and Saturday.

Presently regulations in some states require forty-five minutes of instruction per subject per day for 180 days. This totals 135 hours of instruction per subject per school year. On the basis of three days a week, this would mean forty-five weeks of schooling at one hour each day. Leaving ten days for Christmas holidays, five days for other holidays, and so on, there would be approximately one month for vacations and administrative rescheduling.

Some of the advantages of this plan follow.

It would encourage teachers who can devote only part of their time to teaching to remain in the profession. A housewife-teacher would have four days of each week for familial duties.

The rigors of hot weather could be withstood better on an alternate-day schedule. Rest and relaxation on the part of pupils every other day would lessen the possibility of strain.

The available supply of teachers could be stretched farther. A teacher could teach a full load on Monday, Wednesday, and Friday and if she desired to teach one or two classes in the Tuesday, Thursday, and Saturday school she would be compensated extra for this. Every two-and-one-half teachers teaching two extra classes would create another teacher.

A teacher located near a university could teach on three days and take classes for advanced preparation on the other three days, thus opening the opportunity for advanceddegree attainment.

EDITOR'S NOTE

We have heard about the twelvemonth school, about double sessions, about overlapping sessions, and now we have a new idea-school every other day. This means that school would be held six days a week, with the pupils attending Monday, Wednesday, and Friday; or Tuesday, Thursday, and Saturday. And we suppose that if students attended alternate days, teachers would too. The only frightening aspect of this suggestion is the possibility that someone might suggest that we go to school every third day. This comment, however, is facetious and we know that you will recognize it as such. The ideas in this article merit serious consideration. But we can't help wonder what your reaction may be.

The author of this article is director of special services in the public schools of Columbia, South Carolina.

Pupils who are ill, or who find it necessary to be absent for other reasons, would not miss as many days of school as they do under the present system. For instance, the present trips to Washington which now take up five days of pupil time would be reduced to two or three.

This plan would also help solve the summer vacation problem which hampers the twelve-month plan. A pupil whose parents do not find August suitable would miss only three days of school on a ten-day vacation rather than five days.

With economic pressure the problem it is with our secondary-school pupils, job continuity would be enhanced by this plan. A pupil of poor circumstances would have approximately 180 employable days. This could conceivably increase the possibility of a pupil's remaining in school until graduation. Advanced secretarial-science pupils could work for business on a three-day-a-week basis in a distributive education program.

Except for the extra day, transportation costs would not be so great as in the double-session system. Where bus transportation is not available, parents would find transportation costs distributed over eleven months rather than nine.

This plan would allow for greater flexibility in scheduling. If a subject were not enough in demand to warrant its being offered on Tuesday, Thursday, and Saturday, the pupils desiring this subject could be transferred to Monday, Wednesday, and Friday where, when they were combined with pupils already in this group, a class could be formed.

Five straight classes for superior pupils is quite tiring. Pupils who are superior

could, if they desired, take three classes one day and be released early and return the next day for two more classes. This group, who anticipate becoming college students, would be benefited by this procedure since it is followed by the colleges.

Should it not be desirable for teachers to teach in more than one session, or should it be required to meet 180-day standards, it would be possible for teachers to utilize the community resources for classroom space. As an illustration, the first-period classes of the MWF school could, with their first-period teacher, visit and study the area of the community most closely connected with the class activity. The following week, the second-period classes would do likewise. This would continue throughout the year and this educational program could be woven into the community pattern and become most meaningful.

Furthermore, with two separate schools, it would be possible to have one start its sessions in one month and the other school start in another. This would also stagger the vacation month.

An area much in need of exploration is that of utilizing TV broadcasts to supplement the three days in the school. A great deal might be accomplished by increasing parental involvement through this means.

Such a plan as this has many merits. Largely it is a combination of both the double session and the twelve-month school. Much more administrative help would be needed to administer this plan, and its success would be predicated upon assuring the administrator that he will get this help. Extra state aid to local units for administrators, maintenance, and teacher bonuses would probably help encourage this plan.

Activity Program at Como Park

By SAMUEL H. POPPER

"The Junior high school has become a significant part of the American system of education. Indications are that it will become even more significant in the future. Educators must be careful that it not be allowed to become a neglected 'in between' institution. Rather, it should be developed into a distinctive institution with programs organized to care for the special needs of early adolescents."

This exhortation to guard against the junior high school's becoming a neglected "in-between" institution made a deep impression upon those who were selected to open the Como Park Junior High School, St. Paul's \$2,000,000 addition to its public-school system.

The school opened its doors in September, 1956, as a three-year junior high school. Its curriculum is structured around the English-social studies core. Provision is made in the core teacher's time for the parent-teacher conference. And there are other elements in the program to set Como Park Junior High School apart from an "in between" school. But the part of the curriculum which gives the school its most pronounced distinctiveness is the Student Interest Activity Program.

EDITOR'S NOTE

St. Paul, Minnesota, has built three new junior high schools in the past three years and has attracted attention because of novel educational procedures incorporated in these schools. One "new look" in the junior-high-school program is the student interest activity program, in which every student is required to take part. The why, what, and how of the program are described here by the director of the student interest activity program at Como Park Junior High School.

Its purpose is to provide the early adolescent with a large variety of exploratory experiences of a social, cultural, and intellectual character. Every student in Como Park Junior High School must take part in the activity program. When a student is programed in the spring, his activity selections for the coming school year are recorded on all copies of his program. A student selects activities from an attractively designed activity bulletin, which he first carefully studies with a core teacher-who is also the student's conference or guidance teacher. Each student is urged to take the bulletin home. There, with the added assistance of parents, the student decides upon the selections.

The activity-program bulletin is designed with painstaking care. As this is the first contact students and parents have with the activity program, it was felt that the bulletin should be stated in positive, nontechnical language. A statement by R. O. Isacksen, principal of Como Park Junior High School, clearly explains the purpose of the activity program. This is followed by a listing of fifty-one activities. Each activity has a one-paragraph description of its aims and what the student may expect from it. The activities are divided among five areas:

Area 1 is called "Exploring Career Opportunities." This lists fourteen activities, such as "Future Nurses," "Your Career in the Professions," "Radio and Television Mechanics," "The Commercial Artist," "Auto Mechanics," "Future Teachers." No pretense is made that this is vocational education, or even vocational counseling. Parents are advised that guidance people regard the making of vocational choices at

¹Glenn F. Varner, "The Junior High School," mimeographed bulletin (April, 1955), St. Paul Public Schools.

the junior-high-school level as premature. Moreover, nowhere in the activity bulletin are the expressions "to teach" or "to learn" found. The description of each activity offers only to help the student "to explore," "to investigate," or "to satisfy" a curiosity about a certain vocational interest.

Area 2, "Exploring Recreational Opportunities in the Home," Area 3, "Exploring Recreational Activities in School," and Area 4, "Exploring Useful Hobbies" offer thirtythree activities covering a wide range of recreational interests. The wisdom of providing schooltime to explore such interests thinks ahead to the time when these youngsters will be adults. From all current indications, it would seem that by that time the standard American work week will be thirty-five hours-or, if automation really takes hold, it may even be a thirty-hour work week. How will these adult citizens of future years use their many leisure hours? Frequent expressions of concern about this matter by educators, labor leaders, and industrialists can be found in our daily newspapers. Benjamin Fine gave an account in the New York Sunday Times on December 2, 1956, of a survey made of 13,856 college graduates employed by the General Electric Company. He reported: "Many graduates expressed regret that academic time had not been available to develop more leisure-time interests." We have found that when parents are made aware of the realities their children will face as adults, they accept the validity of exploratory experiences in the junior-high-school curriculum.

Area 5 is called "Exploring Opportunities for Bettering Human Relationships." How to close the distressing gap separating progress in technological engineering from that in social engineering is the concern of this area. Such titles as "Getting to Know Your World-Wide Neighbors," "You and the United Nations," and "Know Yourself" are to be found in this area.

Activities are taken during the third period of alternate Wednesdays, and during the sixth period of each Wednesday. Those enrolled in a third-period activity remain in it all year. We schedule for this hour only such activities as can stand an interruption of one week between meetings. Those enrolled in a sixth-period activity change activities every twelve weeks of the school year. Thus, students at Como Park Junior High engage in four activities a year, or in a total of twelve during their three-year stay at the school.

During the past school year, teachers arranged for the showing of forty-seven films to different activity groups. Activity groups made forty-six field trips to banks, the University of Minnesota, places of business, governmental agencies, libraries, art centers, newspaper plants, and so on.

To make best use of community resources, teachers have called upon thirty-three resource persons to appear before activity groups to add enrichment and to fan interest. Also, they induced parents and local businessmen to serve as sponsors of several activities. Apart from valuable public relations benefits, these sponsors have also contributed considerable material assistance to the program. A coin and stamp dealer provided quantities of stamps and catalogues. An automobile dealer gave us an old car, which was at once dismantled and the parts used by our "Auto Mechanics" group. Another automobile dealer let us have many films, records, and auto parts for the same group. Other activities have in a like manner profited from the kindness of sponsors.

These are some ways by which a student interest activity program can augment the junior-high-school curriculum. In our first year at Como Park Junior High School only the surface was scratched. We found the activity program to be an excellent vehicle for advancing the school's public relations in a most telling manner. The writer believes that in time Como Park Junior High School will successfully establish its right to be regarded as a "distinctive institution."



Letters to the Editor



A Positive Approach to TV

DEAR SIR:

I was rather chagrined to find in the January, 1958, Clearing House an article by George N. Gordon entitled "How Can Teaching Compete with TV?" Professor Gordon's piece, as I understand it, purports to answer the plaint of "poor Miss Ichabod," who laments, "I'm a teacher, not a variety show. Is it any wonder I can't hold the children's attention? Look at the competition: everything from trained pups to western gun fights!"

In the first place, many students of juniorand senior-high-school age eschew the gun fights and pop singers in the TV corral. Some of these students work and have little time to absorb the pernicious effects of TV. Others have grown too big for their boots and spurs and no longer find the epic range wars stimulating.

The point I am making here is that in schools where the students are gregarious and must often be self-supporting, it is absurd for the teacher to shake a damning finger at television when social preoccupations and part-time jobs probably consume an even greater portion of the student's out-of-class time.

But it is not only the complete disregard of these other important factors that prompts my criticism of the article. Professor Gordon's line-up is conveniently divided into "good guys" (teachers) and "bad guys" (TV programs). Nowhere is there a suggestion that ultraconservative teachers might themselves be culpable for dull classes—that even if TV, radio, movies, paper-

backs, records, and other "distractions" ceased to exist, some classes would still be unbearably dull and uninteresting. Why should TV be the whipping boy for ineffective teachers?

Professor Gordon's negative generalizations on TV, as he proves the self-evident truth that teachers teach more than television does, provide the kind of apathetic criticism of the medium that will bring the roller derby and wrestling back into focus. One cannot help but wonder after reading the article if the professor has looked in on "Camera Three" or "The Last Word"; if he has checked "Omnibus" lately: if he ever tunes in the keen news commentaries of Chet Huntley and David Brinkley; if he ever watches "Hall of Fame." Or what about "N.B.C. Opera" and the magnificent adventure abroad with Marian Anderson on "See It Now"? Could any social studies teacher illustrate the brotherhood of mankind so dramatically and eloquently as this magnificent telecast?

Teachers who are willing to investigate advance program listings are finding television a valuable ally instead of a competitor. They are developing taste and enabling students to select meaningful programs out of the blatting monotony that indiscriminate TV viewing can become. A laissez-faire attitude on the teacher's part is not enough in that it implicitly condones unselective viewing.

As to Professor Gordon's final admonition that teachers not follow the circus of video with their own inferior clowning, I say that a little bit of ham can frequently make a meatier lesson.

HENRY B. MALONEY Cooley High School Detroit, Michigan

EDITOR'S NOTE: We welcome the opinions expressed by our readers on the articles, featured departments, and editorial comments contained in The Clearing House. However, signature and full address are required. Names will be withheld upon request.





FORREST IRWIN, Book Review Editor

Trigonometry by ROLLAND R. SMITH and PAUL P. HANSON. Yonkers, N.Y.: World Book Co., 1957. 470 pages, \$8.72.

Here is a book of very pleasing typography, printed functionally in two colors. It is comprehensive, and the explanations and the development of topics are most carefully done, reflecting the

teaching skills of the authors.

The division of the presentation not only into chapters but also into lessons—eighty in all, twenty-three marked "optional"—helps toward pupils' grasp and toward teachers' laying out either a minimum course or an enriched course for the more able pupils. (Some of the optional lessons are: graphs of component functions; problems in three dimensions; the mil; military problems, radar, and sonar; seven lessons on the slide rule; and four lessons on complex numbers, including polar coordinates and Demoivre's theorem.)

Appealing to many teachers will be the arrangement of each lesson, beginning with preparatory exercises to review concepts needed in the lesson, and ending with review exercises to refocus attention on what has been learned in the lesson. In addition, each chapter ends with a chapter summary and review exercises. The syllabus of propositions in plane geometry should also prove very helpful. Many teachers will like the optional lesson on "Proof of the Sum Formulas for Angles in General"; the inclusion of Mollweide's equations for checking triangle solutions; the "Chinese chant" aid given for helping to learn the formulas for sine or cosine of the sum (or difference) of two angles and, again, later for learning the sums-to-products formulas; and the early and excellent explanation of significant figures, scientific notation, and precision v. accuracy.

The painstaking thoroughness of the explanations of topics, the clarity achieved, and the mathematical and psychological completeness make this a book which the teacher will like and from which students can indeed study and learn.

ANDREW F. CRAFTS

Exploring the Weather by Roy A. GAL-LANT. Garden City, N.Y.: Garden City Books, 1957. 64 pages, \$2.50.

Using the large format of the other books of this series, Mr. Gallant presents a discussion of various aspects of weather, including: what is weather, our ocean of air, weather in the making, hurricanes and tornadoes, exploring the weather. As with the other volumes, the book is good value for the money. Twenty-seven of the pages are devoted to colorful drawings and diagrams by Lowell Hess which clarify concepts and often have strong aesthetic appeal as well. While the knowledge illustrated has been portrayed before, Mr. Hess has a style that presents the facts in a gay, informative fashion that is most appealing.

This reviewer would like to have seen more attention given to the world-wide view of weather, to the use of computers in weather analysis, to modern techniques of data gathering. But he is fully aware that every book must be a compromise between desires and physical limitations. Although designed for the eight- to fourteen-year-old group, the volume is valuable to all those who desire a pleasing, informative discussion of basic weather elements, regardless of age or background.

FRANKLYN M. BRANLEY

Folk Arts and Crafts by MARGUERITE ICKIS. New York: Association Press, 1957. 269 pages, \$5.95.

Marguerite Ickis, widely read authority on handicrafts, has written a real treasury of ideas for the teacher and craftsman. Her book should provide adequate inspiration, too, for the current do-ityourself trend. She states in her introduction: "The purpose of this book is to present authentic folk-crafts and to tell how to do them." She has succeeded admirably in her new book which, with its over 1,000 drawings by Miklos Foghtuy, brings to the reader the ageless charm of the folk arts and crafts of those original do-it-yourselfers, the peasants.

This appeal is explained (insofar as it is possible to explain an intangible) in the opening chapter on "Design and Color." The rest of the book deals with crafts for the home, for personal adornment, for camps and playgrounds, for entertainment, and for other uses. One chapter is devoted to folk toys. The projects, each presented in its cultural setting, vary in difficulty and are suitable for youth and adult groups in community centers, camps, hospitals, hobby and other groups. All the popular and better known craft mediums, such as leather, glass, cloth, wood, clay, are involved, as well as some more exotic ones like hoofs and dried apples. There is, incidentally, a most detailed section on mosaics, the latest and most popular craft in the United States.

The author, who says that she is interested not only in giving information on "how to do it" but also in presenting authentic designs to give the American people an appreciation of other nations, has found an indispensable partner in Dr. Foghtuy. He is a native Hungarian, whose knowledge of the folk arts of central Europe served as a guide to the selection of authentic crafts for this book and who described from memory many of the techniques. He has profusely illustrated the volume with drawings of designs and motifs which may be freely applied to the projects here treated, and adapted, too, to others.

Miss Ickis is the coauthor also of the highly successful Book of Arts and Crafts and has written many well-known pamphlets on handicrafts for various uses.

MARGARET A. LARKE

Guiding Students in the English Class by ELIZABETH BERRY. New York: Appleton-Century-Crofts, Inc., 1957. 438 pages,

Several states are working out new courses of study in high-school English based on the curriculum studies of the National Council of Teachers of English. To adjust to these new programs, veteran as well as neophyte teachers will want to know how to work with "units," "projects," and other phases of "integration." They will therefore find a very practical reference in Guiding Students in the English Class by Elizabeth Berry, a book that considers the application of guidance work to the teaching of the language arts.

Specific suggestions are given and cases cited in illustration of almost every possible approach to language arts involving guidance, including a lesson in the principles of guidance itself. Student discipline is considered from the viewpoint of progresive education. Parent-teacher, administration, and other faculty relationships are not slighted. A large part of the book is concerned with organizing the course and with planning specific teaching units. Here is concrete help for the young teacher preparing to teach his first classes. The aids include a list of books for teen-agers and references for further information.

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Sonoma, California

The limitations of this book should be noted. Useful as a reference or even as an auxiliary text in a college course in methods of teaching English, it does not, however, purport to cover the whole field of unit plans in English, such communications units as journalism, radio, and the movies receiving mention only in passing. The book is concerned mostly with motivation through guidance work; integration with the language arts skills—spelling, correctness, paragraphing, vocabulary, and so on—is left to the teacher.

FRANK W. GRUBE

Education and Philosophy, the Yearbook of Education 1957 edited by George Z. F. Bereday and Joseph A. Lauwerys. Yonkers, N.Y.: World Book Co., 1957-578 pages, \$8.50.

This is the fifth volume in an authoritative series prepared under the joint editorial responsibility of Teachers College (Columbia University) and the Institute of Education (University of London). It is concerned with some basic issues confronting organized society and considers all the great questions that have occupied the minds of philosophers, educators, and religious thinkers through the ages. This represents a prodigious undertaking. Merely to confine itself to the area of philosophy would be an enormous task, but the volume goes beyond this by attempting to explore and analyze the relations between philosophy and education. The objectives are reached with considerable success. The writings are scholarly and yet they are presented in an easy-to-read manner. The theoretical expositions are comfortably backed up with case studies drawn from many countries.

This yearbook is a compilation of writings of more than forty scholars, social planners, and educational administrators from all parts of the world. The contributions concern themselves with different aspects of the central theme, "Education and Philosophy," and are arranged into six sections: "The Great Traditions"; "Determinants of Policy"; "National Systems"; "Historical Examples"; "Experimental Institutions"; and "The Teaching of Philosophy of Education." In order to evaluate the full significance of this volume, it is necessary to present a brief synopsis of each section.

The first section of the book outlines how the general assumptions accepted in the main cultural areas of the world have developed certain basic differences of outlook; how the views of India and China, for example, diverge from those of Great Britain and the United States. A group of articles analyzing particular factors in the development of educational systems comprises the second section. Very often schools of high prestige become models

for others to copy and, frequently, these private schools influence the tendencies of a whole national system. This is the concern of the third section, which also includes case studies from several different countries.

The fourth section is historical in nature. Here are presented accounts of several pioneers in education, and an attempt is made to analyze their contributions to education in terms of the philosophical views which they held. The experimental schools, such as the Pestalozzi Village and institutions under UNESCO's administration, are the subject of the fifth section. The concluding section considers the teaching of philosophy of education in British, French, Australian, and American universities. It is suggested that there is an immense need for new thought concerning the discipline of philosophy of education and of the enterprise of teaching it.

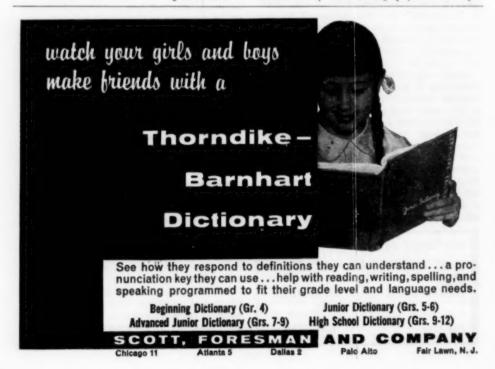
Behind all education there is a philosophy, and that philosophy will inevitably give education its quality and its character. Providing this philosophical background is the ultimate purpose of this yearbook. Not only is this an invaluable work for all persons seriously concerned with philosophy and education, but it will occupy an honored place in the reference section of the library.

JOSEPH GREEN

Measurement and Evaluation in Education by James M. Bradfield and H. Stewart Moredock. New York: The Macmillan Co., 1957. 509 pages, \$5.50.

Measurement in education can vary from counting the number of words spelled correctly to describing behavorial incidents that supposedly reflect children's security or insecurity. Corresponding to these extremes of data about the status of an individual or group are the grades or descriptive phrases reporting the teacher's evaluation of the quality of the behavior observed.

The first half of this book is devoted to the fundamental conceptions and procedures of optimal assistance in performing these tasks of measurement and evaluation. In selecting these the authors kept in mind the needs of elementary and secondary school teachers, principals, supervisors, and other specialists rendering service to the schools. There are four chapters dealing with the application of the general ideas and techniques to such areas as the language arts, the social studies, science and mathematics, physical education, and the fine and applied arts. The measuring and evaluation of intelligence, personality, and character, and the planning and administering of school-wide testing programs are the subjects of the last three chapters. The appendix contains a very useful bibliography and brief ap-



praisal of selected published tests, as well as many samples of report cards and record forms.

Some strong points of the book are its rich use of familiar school illustrations, its careful treatment of observation as a measurement procedure, its suggestions for appraising materials not easily adapted to objective rating, and its critical analysis of various methods of marking and of reporting achievement.

[JOHN J. KINSELLA

Who's Who Among Our Reviewers

Dr. Branley is associate astronomer at the American Museum-Hayden Planetarium in New York.

Mr. Crafts is head of the mathematics department at Scarsdale (New York) High School.

Mr. Green, managing editor of The Clearing House, is an assistant professor on the Teaneck, New Jersey, campus of Fairleigh Dickinson University.

Dr. Grube, chairman of the division of language and literature at Northwest Missouri State College in Maryville, Missouri, is president of the Missouri Association of Teachers of English.

Dr. Kinsella is professor in the School of Education at New York University.

Mrs. Larke, former teacher and supervisor of art in New Jersey and Connecticut schools, is now on the public relations staff at Fairleigh Dickinson.

The Paperbound Review

The Creation of the Universe by George Gamow. New York 22: New American Library of World Literature, Inc., 1957. 152 pages, 50 cents.

This is a stimulating and provocative book that explains the origin and evolution of the universe and the development of galaxies, stars, and planets in the light of contemporary mathematical and physical theory and known nuclear reactions. When this volume was originally published by the Viking Press, it received most favorable responses.

This book is liberally illustrated with photographs, drawing, and charts.

Mid-Century, an Anthology of Distinguished Contemporary American Short Stories edited by ORVILLE PRESCOTT. New York 20: Pocket Books, Inc., 1958, 320 pages, 35 cents.

This volume is an anthology of contemporary American short stories carefully selected by the editor. To explain the basis for selecting these stories, the editor states a preference for stories in which something happens, some revelation about character is made, or some comment on life is recorded. Modern Music by John Tasker Howard and James Lyons. New York 22: New American Library of World Literature, Inc., 1958. 160 pages, 50 cents.

This book, originally published by Thomas Y. Crowell Company, present the foundation upon which an appreciation of modern music can be built. It is written in an easy-to-read style and includes an extensive record list.

Panorama edited by R. F. TANNENBAUM, New York 16: Dell Publishing Co., Inc., 1957, 254 pages, 50 cents.

This volume, the first of a series, is a compilation of articles selected from magazines and books throughout the world. The presentations are most varied, ranging from ants, Indians, and Pygmies to actors, astronomy, and Abraham Lincoln.

The Roman Way to Western Civilization by EDITH HAMILTON. New York 22: New American Library of World Literature, Inc., 1957. 160 pages, 50 cents.

This publication joins two other widely circulated works by Edith Hamilton, The Greek Way to Western Civilization and Mythology. It is concerned with all the facets of Roman life as reflected in the comedies of Plautus and Terence, the writings and deeds of Caesar, Cicero, Horace, and Catullus as well as the later poets and historians.

W. W. Norton and Co. were the original publishers of this volume.

From the CIVIC EDUCATION CENTER, Tufts University, Medford 55, Mass.:

Capitalism-Way of Freedom (rev. ed.), by KEN-NETH SHELDON, 1957. 104 pages, 60 cents.

The basic fundamentals of the capitalistic system are discussed simply and clearly. In addition to an explanation of the more common characteristics of this system, the booklet devotes a reasonable amount of space to the major problems of capitalism—waste, monopoly, poverty, depressions, greed. The Isms and You (new ed.) by WYMAN HOLMES, 1957. 98 pages, 60 cents.

This booklet takes sides and does so emphatically. It is for freedom of the individual and against the isms. Thus, to make democracy a more potent force, it is necessary to understand the operations, pitfalls, and dangers of communism and fascism. This is what this booklet attempts to do.

What About War? by HENRY W. HOLMES, 1957. 96

This booklet attempts to answer provocative questions: Will there always be wars or threats of war?

Must the arms race go on forever? In defense of freedom, can we find no way out of wholesale slaughter by atomic weapons?

The Pamphlet Review

Administrative Facilities in School Buildings by JAMES L. TAYLOR. Washington 25, D.C.: United States Government Printing Office (Special Publication No. 6, United States Office of Education),

1957. 60 pages, 45 cents.

A study of current advances and trends in the construction and arrangement of administrative facilities in American schools was completed recently by the United States Office of Education. The results of the study, designed to help school administrators deal with problems of increased enrollments and expanded school programs, are contained in this publication.

Facilities discussed include offices of the principal, assistant principal, and secretary; teachers', conference, reception, guidance and counseling, and student council rooms; health clinic; staff professional library; school communication facilities; rooms for the storage of records, books, and supplies; and other facilities. Floor plans and photographs are included in the brochure.

Time for Music—a Guide for Parents (Public Affairs Pamphlet No. 260) by BEATRICE LANDECK.
New York 16: Public Affairs Committee (22 E. 38th St.), 1958. 20 pages, 25 cents.

When a parent feels that his child should become interested in music, he usually performs this introduction through the study of an instrument. Consequently, little tots being to play the piano before their toes can reach the pedals or, perhaps, it's the traditional violin. According to this pamphlet, this theory is all wrong. It suggests that parents should avoid thinking of piano lessons or other formal instruction as the proper introduction into the world of music for their children. Instead they should help their children enjoy music through family participation. This can be accomplished by the singing of songs and the playing of records. Let music be a dominating factor in the home. In this atmosphere, the child is bound to develop a fondness for music and an interest in learning to play an instrument of his own choosing.

Thus, the author emphasizes that the parent's role in his child's musical life is to sustain an inter-

est in music in everyday living.

USA in New Dimensions by THOMAS R. CARSKADON and GEORGE SOULE, with graphics by RUDOLF MODLEY. New York 11: The Macmillan Co., 1957-124 pages, \$1.20.

This book is based upon a study sponsored by the Twentieth Century Fund which covered the entire range of economic activity in the United States. The study traced past growth, balanced the country's needs against its resources, and estimated future possibilities. The sim of this publication is to present in simple language and graphic illustrations some of the highlights of the findings. It is an illuminating book, intent upon giving the reader insight on the scope, dimensions, and potential of the economic system of which he is part.

What's Ahead for Civil Service? (Public Affairs Pamphlet No. 258) by DAVID R. LINDSAY, New York 16: Public Affairs Committee (22 E. 38th St.), 1957. 28 pages, 25 cents.

Written in co-operation with the National Civil Service League, the pamphlet pays tribute to the conscientious and loyal rervice of hundreds of thousands of career men and women in federal employment. It finds that, on the whole, the civil service system has greatly improved the standards of government employment, and, in turn, benefited the employees.

However, the government is no longer able to compete in the national scramble for talent. Active recruitment on the part of private companies offering better payings jobs and recent inroads in the security features of civil service appointments have contributed to this second-best status in which federal civil service finds itself. This pamphlet is concerned with the pros and cons of federal civil service and speculates on the future of this vast field of employment.

General Earth Science for High Schools (Curriculum Bulletin 1956-57 Series, No. 5) by the BOARD OF EDUCATION OF THE CITY OF NEW YORK (110 Livingston St., Brooklyn 1), 1957. 71 pages, 50 cents.

This course is offered as an alternative to the course in earth science which is based on the New York State syllabus. The subject matter is organized around problems in which the major emphasis is placed on the manner in which earth science affects the student's own living and experience. Although there is particular reference to illustrations and applications of earth science in New York City and its environs, the material is adaptable to other parts of the country.

The course is built around these eight problems:

(1) What earth factors influence where man lives and works?

(2) Why does man need maps?

(3) Why does man fix the landscape changing?

(5) How does the earth tell the story of its own history?

(6) Why is the sea important to man?

(7) Why does man explore the atmosphere?

(8) Why does man study the heavens? Each problem contains an outline of concepts and generalizations accompanied by related activities and projects. Checks for the bulletin should be made payable to: Auditor, Board of Education.

The Humanities Joday

Associate Editor: HENRY B. MALONEY

TV & NEWER MEDIA

Just Plain Carl

Those who watch the "Wisdom" film on April 13 (N.B.C.-TV, 2:30-3:00, N.Y.T.) in the hope of hearing Carl Sandburg reiterate some of the cantankerous comments that have recently endeared him to the nation's press will be disappointed. Two-time Pulitzer Prize Winner Sandburg will sing a ballad or two, read a few of his poems ("Phizzog," "Snatch of Sliphorn Jazz," "A Couple"), and relate some of Lincoln's commendable traits to the modern era. The telecast, filmed five years ago, contains no hint of Sandburg's quixotic jousting with such mid-twentieth century staples as television, movies, and modern poetry. (For teachers who would like to spice the lesson with biting latter-day quotes from Sandburg, his latest barrage, at the time of this writing, was carried by news services under a January 15 date line.)

One must at this point, I think, separate the poet-biographer Sandburg, whose niche in American letters has been established, from Carl, the professional hick and antimodernist.

In fact, Sandburg's position in the American cultural scene is comparable to that of two other eminently successful artists who could not adapt to the flux of constantly changing patterns. An era changed around Charlie Chaplin. His unrest accumulated until he fled from the whole complex maze of Americana and sought solace in a more primitive political philosophy. An era changed around Louis Armstrong. Instead of meeting the change by refurbishing his repertoire and adding novelty while retaining his basic style, Louis has chosen to dole out the same old jazz—including an interminable drum solo by one of his sidemen—for the last fifteen years.

An era changed around Carl Sandburg. The egocentric humanism of Whitman's chant has

THE PICTURE WORLD TEST

by Charlotte Buhler, Ph.D. and Morse P. Manson, Ph.D. A Stimulating Approach to Understanding Relationships of Personality with Society and Authority.

New Comprehensive 1958 Catalogs Sent Upon Request Western Psychological Services; 10655 Santa Monies Blvd., Los Angelos 25, California become lost in the hypermechanistic Age of the Atom, and so Carl has taken to flaying away at the symbols of the forties and fifties. Chicago, it seems, just ain't the same old Hog Butcher it used to be.

H.B.M.

POEMS FOR TEACHING

In his presentation of what can be found in poems, the instructor may be as clear and logical as an arithmetician-but still, students will persist in thinking that teacher is "reading into" the poem, that he is pulling rabbits out of a magic hat. Often enough one reflects upon a successful poetry class and never can be sure about how much of the success arose from real education or from mere entertainment. Students know that in history classes a factual knowledge of events and dates will furnish them a certain safety margin of dependable answers; in a math class a particular formula will solve frustrating mysteries; in gym specific exercises will develop specific abilities. Understandably, they transfer to the poetry class the cause-and-effect relationship between knowledge and conclusions-and their universe disintegrates. No matter how much specific reference to the text the instructor makes in the development of his conclusions about a poem, there are many students who still react with, "But how do you know? How can I do myself what you do to a poem?"

The answer to this ("this" usually is an attitude of blankness or irritation rather than a conscious question) is threefold: First of all, there is a factual basis to evaluation: simply, certain words either are or are not there in the poem; either they do or do not have a relationship to one another which will successfully support a given explication. Second, the factual level of the poem creates further meaning, but this further meaning arises in a superlogical, or associative, rather than in a logical way. Sensitivity to the associations of meaning that a word demands depends upon the intellectual sophistication (often called "taste") of the reader. It is this dependence that hampers the young reader of poetry, for he simply has not yet been exposed to enough ideas and emotions. There is nothing the teacher can do about this except furnish the only experience, the reading of poetry, that makes the reading of poetry possible and fruitful. The student has to begin somewhere. The beginning is always difficult, and, moreover, usually lasts for years. Third, sensitivity has to be practiced. Mere sensitivity itself does not necessarily result in sensibility. Unless it is toughened and trained by hard practice, plain and fancy, it may always remain the most idiosyncratic and impressionistic response that too often passes for "criticism" or "poetic temperament." Here, too, the teacher can admit only that there is no magic formula, and that the student must go on to sharpen in time the beginning insights that can be offered in the

The importance of all three aspects of this answer can be demonstrated by a simple exercise on the blackboard.

Suppose we begin with

Jack and Jill went up the hill To fetch a pail of water. Jack fell down and broke his crown, And Jill came tumbling after.

First, the factual action of this poem is that of climbing a hill and falling down the hill in injury and pain.

Second, the sophisticated reader will be teased, herein, by a recognition of the parallel between this factual level and innumerable myths. He might say, "See! Here we have a representative story of people. Most people aspire to new heights, only to discover their mortal limitations and defeats and downfalls."

Third, the sophisticated and practiced reader might say, "Notice: it is Jack and Jill, not Jack and Tom or Jack and Bill; that is, here we have the male and the female; that is, we have universal humanity; that is, we have in this verse a myth which symbolizes the total human condition, the story of mankind."

If the students are neither afraid nor dead, they will probably laugh and say that this is all ridiculous, as, of course, it is. But why? the teacher well may ask. Having neither sophistication nor practice, the students can say no more by way of rebuttal than that this is, after all, traditionally simply a nursery rhyme, and that it is only a doggerel story of two children who happen to have the names Jack and Jill. You might point out that Jack and Jill are safely anonymous names so that this doggerel may be a story, for any children, believable enough, about any other children; and that also the names satisfy the requirements of rhyme and meter.

Yet beyond pointing out the lowest utility of the names, the teacher cannot disagree with the students. Indeed, he may point out that they have made a substantial poetic evaluation. The facts of the poem do not, of themselves, create any further complexity, and there is nothing within the words and their associations that creates any mythic level. True, myths with parallel story lines exist, but they are all outside the poem and nothing inside the poem reaches outward to them. The associations are from totally exterior parallels and are therefore accidental; they say much about the nimbleness of the sophisticated reader's mind, but nothing about the poem. By the mere fact that they have ridiculed the associational superstructure because it is imposed on the poem, the students have exercised just the kind of critical judgment they despair of reaching.

Now, however, let us pay less attention to metrical utility and change a few words in the nursery rhyme:

> Adam and Eve went up the hill To fetch refreshing water. Eve fell down and broke her crown, And Adam came tumbling after.

First, once more the factual action is that of climbing the hill and falling down in injury and pain.

But now, second, the words that make the factual level do, of themselves, demand an association with an exterior story. The sophisticated reader may say, "Here is a symbol of the human condition cast in the story of original sin. This is mortal limitation and downfall."

And third, the sophisticated and practiced reader might now fasten on two or three words that in this new context add genuinely heightened associations. For instance, he might suggest that in the traditional context of the poem, water long has been a symbol of life through death, of the spiritual refreshment made possible by rebirth into another life. He could, but need not, enter a discussion setting forth why and how water came to be so associated, psychologically, anthropologically, and philosophically, until a consciously deliberate set of tricks playing with the association, such as Eliot's The Waste Land, for instance, became possible for literature. The important thing is that such treatment of water is now permissible because of the factual level of "Adam" and "Eve." New relationships to meaning are thus made possible for all parts of the poem.

"Crown," for instance, now means more than just head, or crown of the head. It has super-

logical echoes of the crown of heaven, the halo of sainthood, the crown of purity: in short, the symbol of eternal purity and beatitude. The cracked head becomes the tainting of pure mind. Now, one could say legitimately, we have a verse which tells of man's loss of spiritual perfection, refreshment, and bliss in a fall from grace that damaged his beatific condition.

But, the student may object, the story of Adam and Eve and all its infinitely possible variations of association are still an independent and exterior body of reference. The factual action of the story has been created within the poem, but the associations have not. The instructor will agree that this is certainly true, and to that extent the verse is not a completely successful and truly alive poem in its own right; rather it is a rhymed footnote that nobody need ever bother with or anthologize. But the basic facts remain. The words either actually are "Jack and Jill" or they are not. Either they are "Adam and Eve" or they are not. In one example the factual basis does not furnish word associations which reach outward to additional bodies of material that add new dimensions; in the other example the poem does provide "hooks" which fit precisely onto a particular mass of new considerations. The most successful poem will not only depend upon exterior associations by furnishing factual hooks, but it will also make its own creation of those associations within itself, so that the reading of a good poem is the fresh creation of meaning rather than mere reference to it.

Of course, the student must be advised that poetry need not depend at all upon exterior material, but may hook its words so that they relate to one another in interior, complex relationships.

When a poem does this most successfully, it, in turn, becomes itself a body of reference that other poets may utilize for their own creations until all literary influences become merged as a composite of human response to ideas and experience. Thus the energetic understanding of one poem becomes a giant step toward the practiced and sophisticated understanding of poetry generally.

Although "Jack and Jill" certainly will not by itself accomplish any such miracle, it will provide the student with a concrete illustration of why it is necessary to concentrate carefully and intelligently upon each detail in a poem in order to be able to begin any comprehensive evaluation.

> MILTON R. STERN University of Illinois

TRANSCRIPTIONS

The Merchant of Venice with Michael Redgrave as Shylock (Caedmon TC 2013) is clearly a technical triumph. The recording follows the play's double plot through its swift and almost innumerable transitions from scene to scene and character to character with a minimum of dislocation for the listener. It manages this without the disrupting device of an outside voice to set a scene or to tell us who is speaking, and yet the strategic insertion of a name when it is needed in entrance or exit lines keeps us always aware of who is on stage. The cuts, all slight, take away nothing whatever that is vital to the play.

In our time, of course, liberated as we hope we are from the religious stereotypes that filled the narrow minds of Shakespeare's Venetians, we must depend upon the actor to give the play stature—both dramatically and intellectually—through his portrayal of Shylock. For, as the headnote to this recording suggests, Shylock must be his own interpreter to us as few dramatic characters are called upon to be; we cannot depend even a little upon the shallow perceptions of those around him, those near puppets of unexamined mores and morals to whom Shylock may be either fiend or fool but never a human being.

Redgrave's performance has the depth and sensitivity the role must have for a modern audience. His Shylock, rasped by past indignities and lashed by present betrayal, ranges with great evocativeness through many deeply human emotions and builds convincingly toward that final reliance upon implacable, inhuman justice as man's only stay in an essentially inhuman world. Perhaps the best tribute to pay Redgrave's portrayal is that it is difficult to remember, as you listen, that he is achieving this vividness with his voice alone. It is true that sometimes Shylock seems to have truly human significance only by default-by the fact that he moves amidst shallow and insignificant creatures-but that is the fault of the play, not of Redgrave's reading.

Elias Lieberman, Reading from His Poems (Spoken Word, SW-105), contains twenty-eight of Lieberman's short poems and includes all those that are likely to be familiar to most teachers of English. Among the selections, of course, are "Credo" and "I Am an American"—perhaps the best-known of Lieberman's poems. The recording is technically good; the poet's voice, if somewhat restricted in its emotional range, is always precise in its enunciation and

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clear in its interpretation of emphasis and rhythm.

The poems themselves are complex in neither technique nor thought. Their sentiments and moral insights, though unexceptionable, are insufficiently subtle to be intrinsically interesting poetically. This, however, may be a recommendation to the teacher who hopes to lead his students gradually to more complex poetry.

Talking Dust Bowl by Woody Guthrie (Folk-ways Records, FP 11) has a good number of those ballads that grew up around the dust bowl of the depression: songs that document soil erosion and consequent human dislocation; songs of the hopes and expectations (usually disappointed) of the migrant workers; songs of pity, courage, anger, and great human loss. Guthrie includes a long and remarkably complete ballad based upon The Grapes of Wrath.

Other titles that will be familiar to folksong enthusiasts: "So Long, It's Been Good to Know You," "Blowing Down This Road Feeling Bad," and "Dust Bowl Refugee." Guthrie's voice and guitar playing are entirely appropriate to his material.

FRANK HODGINS
University of Illinois

PRINTED PERSPECTIVES

Man-Made America: Three Points of View

America's Arts and Skills by the EDITORS OF LIFE. New York: E. P. Dutton and Co., Inc., 1957. 172 pages, \$13.95.

The Gingerbread Age by John Maass. New York: Rinehart and Co., Inc., 1957. 212 pages, \$7.95.

Native Genius in Anonymous Architecture by SIBYL MOHOLY-NAGY. New York: Horizon Press, Inc., 1957. 223 pages, \$7.50.

Most teachers are willing to concede the responsibility of the schools for mediating the mass media's transformation of the public mind. It is striking that very, very few see any complementary role for education in directing the equally thoroughgoing technological transformation of the natural environment. Why are teachers worried about integrity and humanism in the reconstitution of the interior landscape of the mind and yet quite insensitive to that radical remaking of the external landscape that has been characteristic of American civilization? For what man does (or doesn't do) in the way of

urban planning and domestic and public architecture is just as constitutive of his manners and morals as are the programs or entertainments he watches. If many Americans can be said to have cluttered minds, their front rooms are visible symbols of this interior condition. If many of us make a fetish of flying by the seat of our pants intellectually (disorganized is a more brutal description), then surely our cities are an outward sign of that inward lack of grace. The anthropological fact is that the way we make things reveals our character: send a foreigner to Woolworth's rather than to the Whitney Museum of American Art if you want to give him a quick briefing on the national character. And so the way we have constructed things throughout our history remains an invaluable source of insight for the historian who has learned to ask the right questions.

The editors of Life have learned to ask a good many of the right questions, and the best parts of this former series of photo essays from that magazine-America's Arts and Skills-come from that ability derived from catering to the strengths and weaknesses of their 6,000,000 weekly purchasers. It is perfectly true that Americans have been diffident, when not pugnacious, about what they sensed was the country's inferiority in the field of art. With the indispensable aid of their incomparable color photographers, Life shows that there is a rich tradition of vernacular, everyday beauty in American man-made objects: working tools, carved signs and weather vanes, salt-box houses, revolutionary rifles, Shaker furniture, trotting wagons, clipper ships, covered wagons, and the GM Technical Center, all, and many more of which exhibits are illustrated in color ideal for classroom work. But the weaknesses of the book are also the weaknesses of Mr. Luce's particular brand of affirmation. If Americans are selfconscious about art, it's frequently because they have every reason to be: they've been so busy trying to top last year's grosses that only recently have they relaxed long enough to approach the contemplative side of life with any measure of sophistication.

In the nineteeth century, this aesthetic naïveté led to a wild and woolly importation of architectural exotic styles which produced pretentious and "arty" buildings and everyday objects. This book glosses over that messy chapter in our cultural history with Life's usual power to think positively about the good old U.S.A. But the final chapter gives the game away when, in the search for contemporary everyday beauty it takes a very selective look at America: oil re-

fineries (no smog mentioned), the insides of automated machines and electronic apparatus, and a handful of atypical buildings. The point is that unless Americans see both that they are botching America visually at this point and that they have a tradition based on Emerson and Horatio Greenough (both unmentioned!) which should shame them into doing better, then Life's fanatical yea-saying will inevitably keep Americans from coming to know and appreciate a neglected part of their intellectual and artistic heritage. The good plates in the book do justify its great price, unless you bought enough copies of the original Life series to be able to mount the pictures in a durable way. Even the pictures of poor stuff can be object lessons if accompanied by a little art history, say from John A. Kouwenhoven, Made in America: the Arts in Modern Civilization (Doubleday, 1948), or James Marston Fitch, American Building: the Forces That Shape It (Houghton Mifflin, 1948), or Oliver Larkin, Art and Life in America (Rinehart, 1949), or, for that matter, the recent paperback of Horatio Greenough's essays on form and function in American art, by the University of California Press. As usual, however, there is more color in Life's pictures than to its

Another man who would rescue Victorian architecture from its well-deserved oblivion is John Maass, an Austrian who is now working for a Philadelphia ad agency. Mr. Maass makes some gratuitous insults about architectural historians in his foreword, rather obliquely and nastily informing us that he doesn't claim to be one. This anti-intellectual gesture is all the odder when he claims that his respect for Victorian forms comes from the boldness and vitality which they can bring to our conformist present. Once again, however, one can be completely unconvinced by Mr. Maass's logic but just as totally taken by his eye for good illustrations and his excellent photography. The book is worth his excellent pictures alone, and there are interesting examples from the work of American painters and cartoonists, showing how parallels can be made between the two art forms. Maass, moreover, is contagiously enthusiastic about his subject, and I believe his description of the hodgepodge of buildings found in most American cities might well persuade your students to make the kind of architectural audit of their home towns that Maass has done on a larger scale for his book.

Mrs. Moholy-Nagy's purpose is neither chauvinistic nor in defense of a favorite style. She wants to show, and does brilliantly with her own

photos, that when not corrupted by spurious traditions or speculative greed, man has a wonderfully inventive genius for solving the problems of site, climate, form and function, materials and skills in anonymous architecture (i.e., not by famous professionals, but by people working out their diverse problems on the land). Her search for integrity and respect for the human person throughout the history of human building is motivated by her high regard for this basic form of human expression: "To provide the home as an ideal standard is still the architect's first cause, no matter how great and rewarding are his other contributions to monumental and technological building. The delineation of the place where man can grow, in spite of the dehumanizing forces of mechanization and de-personalization, must be the concern of the architect. He has to fight for it with the same fierce determination with which the land settler cleared his place to live in the wilderness. As those builders of old, the architect of today has to create an anonymous architecture for the anonymous men of the Industrial Age. Without new environmental standards provided by architecture the anonymous multitude will be unable to retain an at-homeness on this factory-strewn earth, and its morale will be broken." Not surprisingly, with her desire for the growth of every individual, Mrs. Moholy-Nagy is a teacher -of future architects at Pratt Institute in Brooklyn; and the depth of her moral earnestness pleased this reader more than the pollyanna-ism of Life and the jauntiness of Mr. Maass. All three books, however, when used by imaginative teachers, will help make future Americans a little more responsible for the changes they have wrought in the national landscape.

P.D.H.

Where Did you Go? Around in Circles

What Did You Say? Nothing

The Articulates edited by John M. Henry. New York: Bobbs-Merrill Co., 1957. 254 pages, \$4.00.

Many "names" share the credit for this book. John M. Henry is the editor; Virgil M. Hancher attests to the authenticity of the selections; the often irrelevant cartoons are by "Ding," Jay N. Darling. The writers however have chosen not to add their names to the credits. The scheme of The Articulates is "a group of ideas divorced from names," as Mr. Henry assures us in his introduction. "A frank and candid expres-

sion of views of men whose intelligence, experience and position, if disclosed, would command respect" is Dr. Hancher's description. Already we have the interesting ambivalence of ideas that must stand on their own merits and the simultaneous reminder that these are ghosts whose identity would command respect.

What are these ideas so controversial that their authors must remain anonymous? Surely we may expect at least revelations to rival a day at a Congressional hearing featuring hooded witnesses. The most earth-shattering idea in the first section, "Government and Politics," is that flag worship impedes progress toward one world. "A consultant to the women's division of the national committee of one of the two major political parties" opens her "Women Can Turn the Tide" with the provocative statement, "A woman is a woman." She continues in this illuminating vein, even stating-so help me-that "it is still the lot of women to say, 'Come live in my heart and pay no rent." I hope my political party relies on sounder counsel.

The second section, "Public Affairs," adds to the platitudes of the first the irresponsibility of guerrilla warfare against the foundations, by "a close advisor to one of the Presidents of the United States" who prefers not to come out and fight like a man. A second essay on women proves only that the arguments need not be laughable to qualify as clichés. Dr. Hancher hopes that The Articulates "may lead to the realization that a banker need not always think or talk as we believe a banker should think or talk." The banker in this volume does no such thing. I had pegged him as a disciple of Dale Carnegie, but I was wrong. He quotes Elbert Hubbard in his last paragraph.

The last section of the book is "The Press." The best spokesman for this section, and for the entire volume for that matter, is a journalist who holds forth on "We of the Professions, Who Worship Mediocrity." The paradox is that this is a most mediocre jeremiad invoking the "old-fashioned virtues" which exist only in the nostalgic mind of the writer.

If these maunderings of "distinguished and accomplished Americans" are controversial, this is a sad day for both leadership and controversy. As one of the amorphous, homogenized "public" whom most of them address, I should much prefer to read the ideas of someone less articulate, less anonymous, someone with imagination and a real controversy. In short, a good idea for a book that unhappily didn't get to first base—indeed, not even out of the batter's box.

MARY E. HAZARD

Mudio-Visual News



By EVERETT B. LARE

SPACE: Film; 8 mins.; color (\$60); Bailey Films, 6509 DeLongpre Ave., Hollywood, California.

As one would suspect from its title, this film is a discussion of how to represent space. Five methods are shown: (1) size differences; (2) vanishing points; (3) different colors; (4) overlapping objects; (5) exaggeration. Size differences are illustrated by varying sizes of pencils: some large, some small. The large ones appear to be closer than the small ones. This is then carried out with trees and rabbits. Vanishing points are illustrated by railroad tracks and a set of telegraph poles. The tracks or poles coming together at a vanishing point appear to be in the remote distance. By use of two vanishing points, the lines of a building may be made to show space.

With reference to colors, the brighter colors have been found to make an object appear closest. Bright red or orange would be colors used to show an object nearby. A blue color would be used in the background. Illustrations of overlapping to show space are a series of circles used to represent oranges or a series of triangles used to represent mountains. Exaggerated figures, out of proportion, may be used to show space. The film closes with a summary of the five points mentioned.

Comments: This film is effective in its teaching techniques. Perspective by the five methods mentioned is important in showing space. The pictures are very effective but the words are necessary also. More concepts might have been covered in the film and more illustrations given. The film runs smoothly and in a logical order. It is very attractive.

It would be used in an art or mechanical drawing class. (Jr.-Sr. H.S.)

DESIGN: Film; 10 mins.; color (\$100); Bailey Films, 6509 De Longpre Ave., Hollywood, California.

This film uses the following steps in demonstrating design: (1) basic shapes; (2) combinations of basic shapes; (3) effective use of repeating shapes; (4) stylization, exaggeration, and distortion.

The film opens with the title, "Design," in illuminated letters. Next we see a fish and then the outline of the fish. Now we come to the

basic shapes—circle, triangle, and square—shown in different colors. The circle may be changed into an ellipse and the ellipse is developed into a fish.

Three triangles shown in color are developed into trees. In combining basic shapes a triangle, an ellipse, and a rectangle are changed into the face of a clown. A circle and two semicircles become a beach scene with umbrellas. Repeating shapes are shown. The fish are drawn at different angles and with alternating colors. Abstract paintings are made of repeating designs. Distorting, exaggerating, and stylizing are shown by a simple eye developed from an ellipse. Hands and heads are made from simple outlines of each. The same is done with a horse. The film closes with examples of designs in lettering.

Comments: This film was greatly enjoyed by our art department people. The strength of the film is in the pictures and the commentary. It received an excellent rating. The picture is appealing. It has a logical and smooth development.

However, our people did feel that the number of concepts covered was too few. More could have been gotten into the film. An audience would have some follow-up after seeing the film. It would lead naturally into student participation. Its main use would be in stimulating interest in design in art classes. (Jr.-Sr. H.S.)

New Films

In order to give greater coverage of the large number of new films being produced each month, a listing of recommended new films, with a one-sentence summary, is included in this column. For a listing of distributors see the end of the column.

ADOLESCENT PROBLEMS

None for the Road, 15 mins., black and white (\$75), Mc.

A discussion of the problem of teen-age drinking and driving.

Kid Brother, 25 mins., black and white (\$145),

A sixteen-year-old boy, resentful over the engagement of his older brother, becomes drunk at a party.

ARTS AND CRAFTS

A Sculptor Carves a Giant, 16 mins., color (\$150), Cox.

A sculptor carves a statue of wood for a college campus.

Making a Stained Glass Window, 22 mins., color (\$195), Cal.

A step-by-step demonstration of the making of a stained-glass window.

Making Wood Sculpture with Files, 13 mins., color (\$135), Cox.

A horse is sculptured from wood with the use of files.

The Napoleonic Era, 13 mins., black and white (\$68.75); color (\$125), Cor.

The building of the Grand Empire is shown through the works of Frederic Gautier and other painters.

The Renaissance, 25 mins., color (\$225), EB.
The meaning of the term Renaissance is shown by the works of Giotto, Michelangelo, and others in Florence.

BUSINESS EDUCATION

The Secretary: a Normal Day, 11 mins., black and white (\$55); color (\$100), Cor.

Depicts the routine working day of a secretary, including her many varied duties.

The Secretary: Taking Dictation, 11 mins., black and white (\$55); color (\$100), Cor.

The correct procedures to use in taking dictation are demonstrated.

The Secretary: Transcribing, 11 mins., black and white (\$55); color (\$100), Cor.

Shorthand material is transcribed after special instructions are checked.

FRENCH

Terre D'Alsace, 11 mins., color (\$85), Wa. Narrated in French, a French farmer and his family describe the history, work, and customs of the countryside.

HOME ECONOMICS

Hanging and Finishing a Hem, 12 mins., black and white (\$50); color (\$100), Ba.

An explanation of the steps in hemming a garment, including several different ways of stitching.

MATHEMATICS

Understanding Numbers: Short Cuts, 30 mins., black and white (\$100), Ind.

An explanation of how computation is simplified by use of logarithms and the slide rule.

Music

The Elements of Composition, 27 mins., black and white (\$125), Ind.

Melody, harmony, rhythm, and counterpoint are explained and illustrated by excerpts from classical music.

Introducing the Woodwinds, 23 mins., black and white (\$100), Ind.

The New York Woodwind Quintet introduces the flute, the piccolo, the bassoon, the oboe, the clarinet, and the French horn to a group of young people.

Let's Try Choral Reading, 11 mins., black and

white (\$50), Mc.

Choral groups demonstrate ways of developing better enunciation and articulation.

Percussion, the Pulse of Music, 21 mins., black and white (\$100), Ind.

Among other works, an excerpt from Samson and Delilah is used to demonstrate the sounds and uses of percussion instruments.

TEACHER EDUCATION

Individualizing Reading Instruction in the Classroom, 20 mins., black and white (\$90), TC.

A first-grade teacher shows how she and her pupils plan an activity and reading period so that she may give individual instruction.

Keyboard Experiences in Classroom Music, 20 mins., black and white (\$75), TC.

Shows how a third-grade class is taught music skills by means of the mute keyboard, the piano, autoharp, tom-toms, and other instruments.

PRODUCERS OR DISTRIBUTORS

Ba. Bailey Films, 6509 De Longpre Ave., Hollywood, Calif.

Cal. University of California, Educational Film Sales, Los Angeles 24, Calif.

Cor. Coronet Films, 65 E. South Water St., Chicago 1, Ill.

Cox. Paul Cox, Coast Visual Education Co., 5620 Hollywood Blvd., Hollywood 28, Calif. EB. Encyclopaedia Britannica Films, 1150 Wil-

mette Ave., Wilmette, Ill.

Ind. Indiana University, NET Film Service,
Bloomington Ind.

Bloomington, Ind. Mc. McGraw-Hill Textfilms, 330 W. 42d St.,

New York 36, N.Y. Men. Mental Health Film Board, 166 E. 38th St., New York 16, N.Y.

TC. Teachers College, Columbia University, 525 W. 120th St., New York 27, N.Y.

Wa. Wayne University, A-V Consultation Bureau, Detroit 1, Mich.

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